



苏州沃尔兴电子科技有限公司  
Suzhou Volsun Electronics Technology Co.,Ltd.

Electric insulation protection solutions

*Science & Technology changing the world,  
Service doubling the value  
Volsun, well connect your great future...*



苏州沃尔兴电子科技有限公司  
Suzhou Volsun Electronics Technology Co.,Ltd.

Add: No.402 Mudong Road, Suzhou, Jiangsu, China

Tel: 0086-512-66386808

Fax: 0086-512-66386908

E-mail: [sales@szvolsun.com](mailto:sales@szvolsun.com)

Web: [www.szvolsun.com](http://www.szvolsun.com)

[www.coldshrinktubing.com](http://www.coldshrinktubing.com)



company video

# Introduction

Volsun was founded in 2006, as the pioneer of cold shrink tube manufacturer in China, we keep focusing on the R & D, production and sales in insulation, sealing & protection solutions for more than 14 years.

Quality is our culture. Volsun has a modern quality management system, which has passed a series of quality system certification such as IATF16949, ISO9001 etc. And we have gained some advanced titles such as Jiangsu famous scientific and technical corporation, China new high-tech enterprise etc. have independent intellectual property rights, 88 patents and 97 product certifications.

Up to now, Volsun cooperated with customers from 88 countries, we offer suitable sealing, waterproof solutions for some well-know enterprises in communication, Automobile, Power industry etc.

We will keep on innovation, and offer you a better and reliable solution for connectivity is our commitment. Volsun, your specialist in Insulation, Sealing & Protection solutions!

# History

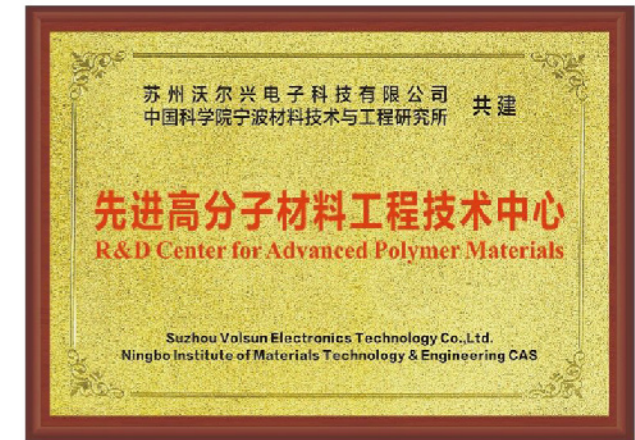
- 2006.10 VOLSUN Founded
- 2007.05 Became supplier of Winchester US
- 2008.01 Cold shrink tube new products launched into market
- 2014.12 Became Jiangsu Science and Technology Enterprise
- 2015.07 Successfully applied for 43 national patents
- 2016.12 Awarded the title of national high-tech enterprise
- 2017.11 Approved by several Top 10 telecom companies
- 2018.01 Cooperated with the Chinese Academy of Sciences
- 2019.01 Cooperated with 88 countries' customers
- 2019.09 Subsidiary Suzhou Fast New Materials Co., Ltd. gained the Suzhou Leadership Talent Award
- 2020.06 Move into 12,000m<sup>2</sup> new factory building, monthly output over 1 million pcs, should be the China No.1  
Keep going.....



# Cooperative Partner



# Volsun Honors & Certifications



# CONTENTS

## Product Solutions

New Energy Automobile industry .....	01
Electric Motor Insulation and Protection .....	01
Wiring harness Insulation and Protection .....	01
Aerospace industry .....	02
Shipping industry .....	02
Rail Transportation industry .....	03
Electronics and Electrical industry .....	03
Telecommunication industry .....	04
Medical industry .....	04

## Product Introduction

### Braided Sleeve

NS-GF200RES Silicone Resin Fiberglass Sleeve .....	05
NS-GF200RUB-N Silicone Rubber Fiberglass Sleeve Inner	
Braided fiberglass Outside Silicone Rubber .....	06
NS-ARG Acrylic Fiberglass Sleeve .....	07
NS-PUGF Polyurethane Fiberglass Sleeve (PU Fiberglass Sleeve) .....	08
BZG-PA66 Braided Sleeve .....	09
BZG-PET Braided Sleeve .....	10

### Cold Shrink Tube

RUBLS-SILIC Silicone Cold Shrink Tube .....	11
RUBLS-EPDM Cold Shrink EPDM Tube .....	12

### Tape

FST6080 Waterproof Insulation Tape .....	13
Self-Fusing Silicone Tape .....	14

### Corrugated Pipe

BWG-PA6 Seal Type Corrugated Pipe .....	15
BWG-PP Seal Type Corrugated Pipe .....	16

### Silicone Tube

NS-SIL200 Silicone Tube (Electronic grade, Food grade, Medical grade) .....	17
---	----

### Teflon Tube

NS-PTFE200 Teflon(PTFE) Tubing .....	18
--------------------------------------	----

### Single Wall Heat Shrink Tube

DBRS-125H(2X)(3X) Halogen-free Flame Retardant Heat Shrink Tube .....	19
DBRS-125H(2X)CB Halogen-free Ultra-thin Flame Retardant Heat Shrink Tube .....	21
DBRS-125G(2X)YG Yellow/Green Stripe Heat Shrink Tube .....	22

### Dual Wall Heat Shrink Tube

SBRS-110G(3X)(4X)NF Non-Flame Retardant Adhesive Lined Dual Wall Heat Shrink Tube .....	23
SBRS-125G(3X)(4X) Flame Retardant Adhesive Lined Dual Wall Heat Shrink Tube .....	24
SBRS-GFV(3X) V0 Flame Retardant Dual Wall Heat Shrink Tube .....	25
SBRS-VBK Semi-rigid Adhesive Lined Dual Wall Heat Shrink Tube .....	26

### Medium and Heavy Wall Heat Shrink Tube

ZBWJ-110G(3.5X)NF Semi-rigid Medium Wall Heat Shrink Tube .....	27
ZBDJ-110G(3.5X)NF Semi rigid Medium Wall Adhesive-lined Heat Shrink Tubing .....	28
HBWJ-110G(3.5X)NF Semi rigid Heavy Wall Heat Shrink Tubing (Without adhesive inside) .....	29
HBDJ-110G(3.5X)NF Semi rigid Heavy Wall Adhesive lined Heat Shrink Tubing .....	30

### Special Material Heat Shrink Tube

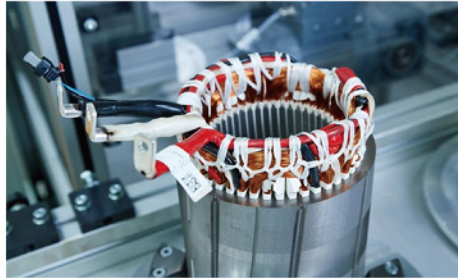
TZRS-DR150(2X) Diesel Resistant Modified Elastomeric Heat Shrink Tubing .....	31
TZRS-EPDM150(2X) EPDM Rubber Heat Shrink Tubing .....	32
TZRS-VT200(2X) Fluor-elastomer (Viton) Heat Shrink Tubing .....	33
TZRS-SIL200(1.7X) Silicone rubber heat shrink tube .....	34
TZRS-PVDF175(2X) PVDF-Kynar Heat Shrinkable Tubing .....	35
TZRS-PVDF150(2X)M PVDF-Medical Grade Heat Shrinkable Tubing .....	36
TZRS-PTFE260(1.7X)(4X) Teflon PTFE Heat Shrink Tubing .....	37
TZRS-HW(2X) Non-slip Textured Heat Shrink Tube .....	38

### Identification Products

MS-VLU (VLA\VLO\VLD) Halogen Free Environmentally Friendly Heat Shrinkable Wire Identification Sleeves .....	39
MT-VLU (VLA\VLO\VLD) Halogen Free, Environmentally Friendly Cable Identification Tags .....	40
MS-VLH High temperature Heat Shrinkable Identification Sleeves .....	41

## New Energy Automobile industry

### Electric Motor Insulation and Protection



- ✧ Viton Heat Shrink Tubing ----- 33
- Shrink ratio: 2:1
- Oil and solvent resistant, high flame retardant, flexible
- Operating temperature: -60°C-200°C



- ✧ Silicone Rubber Heat Shrink Tube ----- 34
- Shrink ratio: 1.7:1
- Acid and alkali resistant, corona resistant, anti-mold, flame retardant, flexible
- Operating temperature: -55°C-200°C



- ✧ Silicone Rubber Fiberglass Sleeve ----- 06
- Environmental friendly, flame retardant
- Flexible, High voltage resistant
- Operating temperature: -60°C-200°C

### Wiring harness Insulation and Protection



- ✧ Dual Wall Heat Shrink Tube ----- 24
- Shrink ratio: 3:1, 4:1
- Flame retardant, insulation, sealing, waterproof
- Operating temperature: -45°C-125°C



- ✧ PA66 Braided Sleeve ----- 09
- Flame retardant, environmental friendly
- Wear resistant, corrosion resistant, flexible
- Melting point: 256±5°C

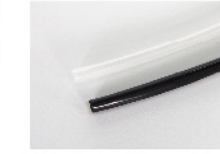


- ✧ PA6 Corrugated Pipe ----- 15
- RoHS compliant, Halogen free, Non-phosphorus
- Flexible, Anti twist, acid resistant, friction resistant
- Operating temperature: -40°C-125°C

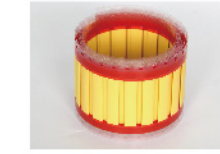
## Aerospace industry



- ✧ Diesel resistant Heat Shrink Tubing ----- 31
- Shrink ratio: 2:1
- Diesel resistant, flexible, flame retardant
- Operating temperature: -75°C-150°C



- ✧ Kynar Heat Shrinkable Tubing ----- 35
- Shrink ratio: 2:1
- Wear resistant, Oil and solvent resistant, resistant to cutting
- Operating temperature: -55°C-175°C



- ✧ Heat Shrinkable Wire Identification Sleeve ----- 39
- Shrink ratio: 2:1, 3:1
- Permanent identification, shrink fastly
- Rated temperature: 135°C

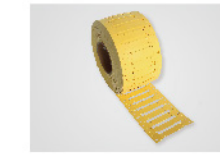
## Shipping industry



- ✧ Medium Wall Adhesive lined Heat Shrink Tubing ----- 28
- Shrink ratio: 3.5:1
- Wear resistant, Waterproof, environmental friendly
- Operating temperature: -55°C-110°C

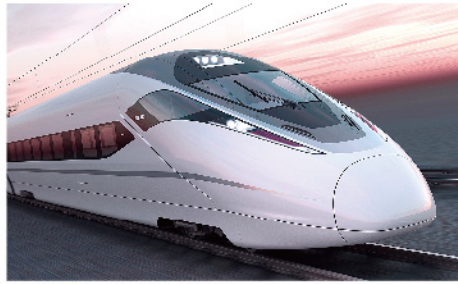


- ✧ Diesel resistant Heat Shrink Tubing ----- 31
- Shrink ratio: 2:1
- Diesel resistant, flexible, flame retardant
- Operating temperature: -75°C-150°C



- ✧ Halogen Free Cable Identification Tag ----- 40
- High flame retardant, VW-1 grade
- Scratch resistant, wear resistant, permanent identification
- Rated temperature: 125°C

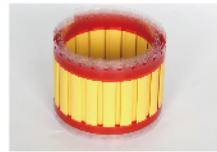
## Rail Transportation industry



- ✧ Dual Wall Heat Shrink Tube ----- 24
- Shrink ratio: 3:1,4:1
- Flame retardant,insulation,sealing,waterproof
- Operating temperature: -45°C-125°C



- ✧ Viton Heat Shrink Tubing ----- 33
- Shrink ratio: 2:1
- Oil and solvent resistant,high flame retardant, flexible
- Operating temperature: -60°C-200°C



- ✧ Heat Shrinkable Wire Identification Sleeve ----- 39
- Shrink ratio: 2:1,3:1
- Permanent identification,shrink fastly
- Rated temperature: 135°C

## Electronics and Electrical industry



- ✧ Halogen-free Flame Retardant Heat Shrink Tube ----- 19
- Shrink ratio: 2:1,3:1
- Halogen free,low smoke,non-toxic,flexible,flame retardant
- Operating temperature: -55°C-125°C



- ✧ Dual Wall Heat Shrink Tube ----- 24
- Shrink ratio: 3:1,4:1
- Flame retardant,insulation,sealing,waterproof
- Operating temperature: -45°C-125°C



- ✧ Silicone Resin Fiberglass Sleeve ----- 05
- Environmental friendly,flame retardant
- Voltage type: 1.5KV,2.5KV
- Operating temperature: -60°C-200°C

## Telecommunication industry



- ✧ Silicone Cold Shrink Tube ----- 11
- Easy installation,no need heating or other tools
- Weather resistant,UV resistant,acid and alkali resistant
- Operating temperature: -60°C-200°C



- ✧ EPDM Cold Shrink Tube ----- 12
- Shrink ratio: 3.5:1
- IP68 waterproof grade
- UV resistant,weather resistant,Ozone Aging,Anti-mold



- ✧ Waterproof Insulation Tape ----- 13
- Aging resistant,Strong stickness
- Can be used both indoor and outdoor
- Sealing,Waterproof

## Medical industry



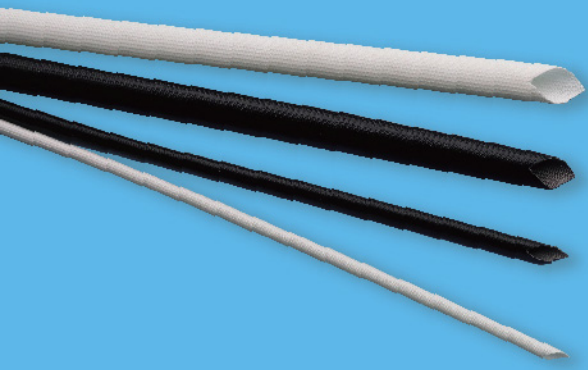
- ✧ PVDF-Medical Grade Heat Shrinkable Tubing ----- 36
- Shrink ratio: 2:1
- Wear resistant,oil and solvent resistant,resistant to cutting
- Operating temperature: -55°C-150°C



- ✧ Teflon PTFE Heat Shrink Tubing ----- 37
- Shrink ratio: 1.7:1
- Corrosion resistant,acid and alkali resistant,oil resistant
- Operating temperature: -65°C-260°C



- ✧ Medical grade silicone tube ----- 17
- FDA approved,environmental friendly
- High temperature resistant,flexible
- Operating temperature: -60°C-200°C



## NS-GF200RES

### Silicone Resin Fiberglass Sleeve

#### Description

Silicone resin fiberglass sleeve, by alkali-free glass fiber woven into a tube after coated with silicone resin, and then by high temperature treatment. It has good dielectric property, good softness and temperature resistance. Widely used in motors, household appliances, electrical equipment, electronic devices and cluster wire hardness insulation.

#### Features

- Operating temperature: -40°C~200 °C
- RoHS compliant
- Standard color: White, other colors on quest

#### Technical Performance

Type	Breakdown voltage(V)		Volume resistivity (Ω.cm)	Temperature resistance
	Average	Volume resistivity(Ω.cm)		
1.5KV	1500	1000	10 <sup>11</sup>	-40°C~200°C
2.5KV	2500	1800		

#### Dimensions

Inner Diameter(mm)		Wall Thickness(mm)		Packaging (Roll/M)
Size	Tolerance	1.5KV	2.5KV	
Φ0.5	0~+0.20	0.30±0.1	0.35±0.1	200
Φ0.8	0~+0.20	0.30±0.1	0.35±0.1	200
Φ1.0	0~+0.20	0.30±0.1	0.35±0.1	200
Φ1.5	0~+0.25	0.35±0.1	0.40±0.1	200
Φ2.0	0~+0.25	0.35±0.1	0.40±0.1	100
Φ2.5	0~+0.25	0.35±0.1	0.40±0.1	100
Φ3.0	0~+0.25	0.35±0.1	0.40±0.1	100
Φ3.5	0~+0.35	0.40±0.1	0.45±0.1	100
Φ4.0	0~+0.35	0.40±0.1	0.45±0.1	100
Φ4.5	0~+0.35	0.40±0.1	0.45±0.1	100
Φ5.0	0~+0.35	0.40±0.1	0.45±0.1	100
Φ5.5	0~+0.40	0.45±0.1	0.50±0.1	100
Φ6.0	0~+0.40	0.45±0.1	0.50±0.1	100
Φ7.0	0~+0.50	0.45±0.1	0.50±0.1	100
Φ8.0	0~+0.50	0.45±0.1	0.50±0.1	50
Φ9.0	0~+0.50	0.45±0.1	0.50±0.1	50
Φ10.0	0~+0.70	0.50±0.15	0.55±0.15	50
Φ11.0	0~+0.70	0.50±0.15	0.55±0.15	50
Φ12.0	0~+0.70	0.50±0.15	0.55±0.15	50
Φ13.0	0~+0.80	0.55±0.15	0.60±0.15	50
Φ14.0	0~+0.80	0.55±0.15	0.60±0.15	50
Φ15.0	0~+0.80	0.55±0.15	0.60±0.15	50
Φ16.0	0~+0.80	0.55±0.15	0.60±0.15	50
Φ17.0	0~+0.80	0.60±0.20	0.60±0.20	30
Φ18.0	0~+0.80	0.60±0.20	0.65±0.20	30
Φ19.0	0~+0.80	0.60±0.20	0.65±0.20	30
Φ20.0	0~+0.80	0.60±0.20	0.65±0.20	30
Φ22.0	0~+0.80	0.65±0.20	0.75±0.20	30
Φ25.0	0~+0.80	0.75±0.20	0.85±0.20	30
Φ30.0	0~+0.80	0.85±0.25	0.95±0.25	30



## NS-GF200RUB-N

### Silicone Rubber Fiberglass Sleeve—Inner Braided fiberglass Outside Silicone Rubber

#### Description

Silicone rubber fiberglass sleeve is made of alkali-free fiberglass woven into a tube, coated with a layer of silicone rubber composite material on the outer layer of the tube, and then heated and cured. With high dielectric strength, good flexibility, heat resistance aging, flame retardant, temperature resistance up to 200°C.

Widely used in household electrical appliances, motors, electromechanical equipment, vehicles, ships and other circuit insulation protection.

#### Features

- Operating temperature: -40°C~200°C
- RoHS compliant
- Standard color: Nature,White, red, yellow, blue, green, black,other colors on quest

#### Technical Performance

Type	Breakdown voltage(V)		Volume resistivity (Ω.cm)	Temperature resistance	Flammability
	Average	Minim			
4.0KV	4000	3000	10 <sup>11</sup>	-40°C~200°C	UL94 HB Grade
7.0KV	7000	5000			

#### Dimensions

Inner Diameter(mm)		Wall Thickness(mm)		Package (Roll/M)
Size	Tolerance	4.0KV	7.0KV	
Φ0.5	-0.1~+0.20	0.40±0.1	0.45±0.1	200
Φ0.8	-0.1~+0.20	0.40±0.1	0.45±0.1	200
Φ1.0	-0.1~+0.20	0.40±0.1	0.45±0.1	200
Φ1.5	-0.1~+0.25	0.45±0.1	0.50±0.1	200
Φ2.0	-0.1~+0.25	0.45±0.1	0.50±0.1	100
Φ2.5	-0.1~+0.25	0.45±0.1	0.50±0.1	100
Φ3.0	-0.1~+0.25	0.45±0.1	0.50±0.1	100
Φ3.5	-0.1~+0.35	0.50±0.1	0.55±0.1	100
Φ4.0	-0.1~+0.35	0.50±0.1	0.55±0.1	100
Φ4.5	-0.1~+0.35	0.50±0.1	0.55±0.1	100
Φ5.0	-0.1~+0.35	0.50±0.1	0.55±0.1	100
Φ5.5	-0.1~+0.40	0.55±0.1	0.60±0.1	100
Φ6.0	-0.2~+0.40	0.55±0.1	0.60±0.1	100
Φ7.0	-0.2~+0.50	0.55±0.1	0.60±0.1	100
Φ8.0	-0.2~+0.50	0.55±0.1	0.65±0.1	50
Φ9.0	-0.2~+0.50	0.55±0.1	0.65±0.1	50
Φ10.0	-0.2~+0.70	0.65±0.15	0.70±0.15	50
Φ11.0	-0.2~+0.70	0.65±0.15	0.70±0.15	50
Φ12.0	-0.2~+0.70	0.65±0.15	0.70±0.15	50
Φ13.0	-0.3~+0.80	0.70±0.15	0.75±0.15	50
Φ14.0	-0.3~+0.80	0.70±0.15	0.75±0.15	50
Φ15.0	-0.3~+0.80	0.70±0.15	0.75±0.15	50
Φ16.0	-0.3~+0.80	0.70±0.15	0.75±0.15	50
Φ17.0	-0.5~+1.00	0.75±0.20	0.80±0.20	30
Φ18.0	-0.5~+1.00	0.75±0.20	0.80±0.20	30
Φ19.0	-0.5~+1.00	0.80±0.20	0.85±0.20	30
Φ20.0	-0.5~+1.00	0.80±0.20	0.85±0.20	30
Φ22.0	-0.5~+1.00	0.85±0.20	0.90±0.20	30
Φ25.0	-0.5~+1.00	0.95±0.20	1.05±0.20	30
Φ30.0	-0.5~+2.00	1.05±0.25	1.15±0.25	30



## NS-ARG

### Acrylic Fiberglass Sleeve

#### Description

Acrylic fiberglass sleeving is braided with superior fiberglass, then coated with acrylic resin and treated in suitable high temperature. It is widely used in Class F motors, household electrical appliances, electrical heat devices, and special lamps and lanterns for insulation protection.

#### Features

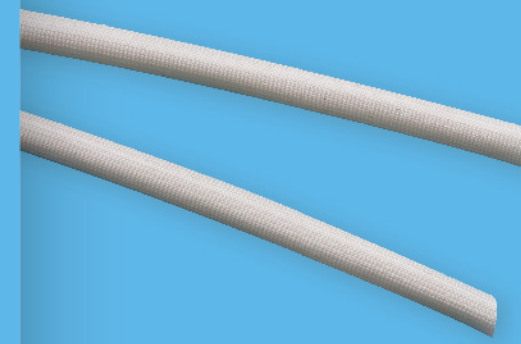
- Continuous operating temperature: -40°C~155°C
- RoHS compliant
- Breakdown Voltage: 1.5KV-4.0KV

#### Technical Performance

P/N	Temp resistance	Average voltage	Min average voltage
AGR-15	-40°C~+155°C	1500v	1200v
AGR-25	-40°C~+155°C	2500v	1800v
AGR-40	-40°C~+155°C	4000v	3000v

#### Dimensions

Inner Diameter(mm)		Wall Thickness(mm)	
Size	Tolerance	Class A	Class B and C
0.5~2.5	+0.25~0.00	0.38	0.20
3.0~4.5	+0.30~0.00	0.45	0.23
5.0~6.0	+0.40~0.00	0.45	0.28
7.0~9.0	+0.55~0.00	0.50	0.32
10.0~14.0	+0.75~0.00	0.60	0.40
15.0~25.0	+0.85~0.00	0.64	0.43



## NS-PUGF

### Polyurethane Fiberglass Sleeve (PU Fiberglass Sleeve)

#### Description

PU fiberglass sleeving is non-alkali fiberglass braided, which is coated polyurethane resin and treated in high temperature ( temperature resistance can up to 150°C +) . PU fiberglass sleeving possesses reliable heat resistance and good electrical performance. It can be used for wiring insulation and mechanic protection for F grade electrical machinery and electric appliances. etc.

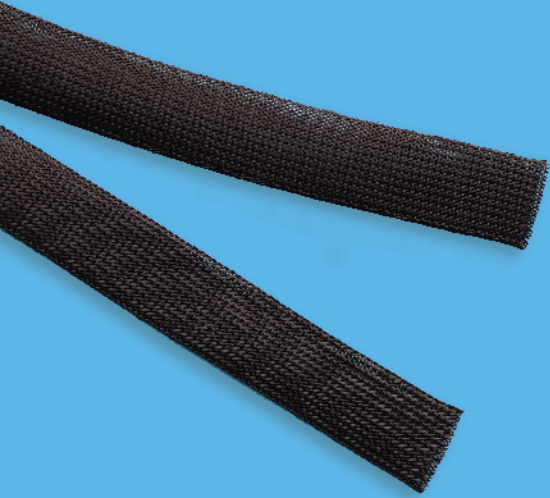
#### Features

- Continuous operating temperature: -30°C~150°C
- RoHS compliant
- Breakdown Voltage: 2.5KV~4KV
- Standard Color: White, Amber. More colors are available upon request.

#### Dimensions

Inner Diameter(mm)		Wall Thickness(mm)		Package (m/spool)
Size	Tolerance	Min.	Max	
0.5	±0.15	0.35	0.65	200
0.8	±0.20	0.35	0.65	200
1.0	±0.20	0.35	0.65	200
1.5	±0.20	0.35	0.65	200
2.0	±0.20	0.35	0.65	200
2.5	±0.20	0.35	0.65	200
3.0	±0.25	0.35	0.65	200
3.5	±0.25	0.35	0.65	200
4.0	±0.25	0.35	0.65	200
4.5	±0.25	0.35	0.65	100
5.0	±0.25	0.35	0.65	100
6.0	±0.25	0.35	0.65	100
7.0	±0.25	0.35	0.65	100
8.0	±0.30	0.50	0.90	100
9.0	±0.30	0.50	0.90	100
10.0	±0.30	0.50	0.90	100
12.0	±0.30	0.50	0.90	100
14.0	±0.50	0.50	1.00	100
16.0	±0.50	0.50	1.00	100
18.0	±0.50	0.50	1.00	100
20.0	±0.50	0.50	1.00	100
22.0	±0.60	0.50	1.50	50
24.0	±0.60	0.50	1.50	50
25.0	±0.60	0.50	1.50	25
30.0	±0.60	1.00	2.00	25
35.0	±0.60	1.00	2.00	20
40.0	±0.60	1.00	2.00	20
45.0	±0.60	1.00	2.00	20
50.0	±0.60	1.00	2.00	20





## BZG-PA66 Braided Sleeve

### Description

It is woven with nylon 66 monofilament, which has excellent wear resistance, corrosion resistance and flexibility. Products are widely used in military, automotive, aviation and other fields to protect wiring harnesses, hoses, pipes and other components.

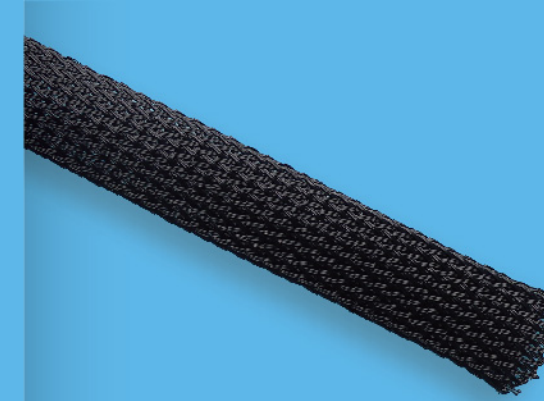
### Features

- Flame retardant grade: VW-1
- Operating temperature: -40°C~+150°C
- Melting temperature: 240°C±10°C
- Standard color: Black, grey

### Dimensions

Model	Width (mm)	Expansion range(mm)		Standard package (M/Roll)
		Min (I)	Max (O)	
NY - 003	3.0	1.0	6.0	1500
NY - 006	6.0	3.0	9.0	1000/500
NY - 008	8.0	5.0	12.0	500
NY - 010	10.0	7.0	17.0	300
NY - 012	12.0	8.0	20.0	300
NY - 014	14.0	9.0	25.0	300
NY - 019	19.0	14.0	30.0	300
NY - 025	25.0	18.0	33.0	200
NY - 032	32.0	20.0	50.0	200
NY - 038	35.0	30.0	60.0	100
NY - 045	45.0	35.0	75.0	100
NY - 050	50.0	40.0	80.0	100
NY - 064	64.0	45.0	105.0	100
NY - 076	76.0	50.0	124.0	100

- Remark: 1. Folding diameter refers to the flat width of the braided sleeve.  
 2. The braided sleeve is flexible, and the flat width tolerance is very large  
 3. Special packaging, special colors, etc., can be customized according to customer needs.



## BZG-PET Braided Sleeve

### Description

The PET telescopic braided sleeve is a high-performance sleeve that combines flame retardant and halogen-free performance. It can meet the requirements for wear protection in various industrial fields. In particular, its unique braided structure can be expanded to 1.5 times larger than the original diameter, which is more suitable for wrapping wire harnesses and can smoothly pass through bulky connectors. It is widely used in computer power cords, wiring harnesses, hoses, wire processing and other industries.

### Features

- Flame retardant grade: VW-1
- Environmental friendly, non-toxic
- Melting temperature: 240±10°C
- Operating temperature: -50°C~+150°C
- Standard color: Black, grey

### Dimensions

Model	Flat diameter W		Expansion range(mm)		Standard package (M/Roll)
	mm	Inch	Min (I)	Max (O)	
PET-003	3.0	1/8"	1.0	6.0	1000
PET-006	6.0	1/4"	3.0	9.0	500
PET-008	8.0	5/16"	5.0	16.0	350
PET-010	10.0	3/8"	7.0	19.0	350
PET-012	12.0	1/2"	8.0	24.0	300
PET-016	15.0	5/8"	10.0	27.0	250
PET-019	20.0	3/4"	14.0	30.0	200
PET-025	25.0	1"	18.0	35.0	200
PET-032	30.0	1 1/4"	20.0	50.0	150
PET-038	40.0	1 1/2"	30.0	60.0	100
PET-045	45.0	1 3/4"	35.0	75.0	100
PET-050	50.0	2"	40.0	80.0	100
PET-064	64.0	2 1/2"	45.0	105.0	100
PET-076	76.0	3"	64.0	120.0	100

- Remark: 1. Folding diameter refers to the flat width of the braided sleeve.  
 2. The braided sleeve is flexible, and the flat width tolerance is very large  
 3. Special packaging, special colors, etc., can be customized according to customer needs.



## RUBLS-SILIC

### Silicone Cold Shrink Tube

#### Description

RUBLS-SILIC Silicone Rubber Cold shrink tube Series Cold Shrink Lug and Connector Insulators is made of special purpose silicone rubber with a high shrink ratio and excellent physical and mechanical properties like slab and prick resistance. It reliably seals electrical connections of electric communications and cable televisions against water and moisture and effectively insulates wire and cable connections or joints and other electrical connections etc.

#### Technical Performance

Properties	Typical Data	Test Method
Shore Hardness	40±5	GB/T 531-2008
Tensile Strength	≥9.0MPa	GB/T 528-2009
100% Stress at Definite Elongation	≤1.2MPa	GB/T 528-2009
200% Stress at Definite Elongation	≤2.0MPa	GB/T 528-2009
Elongation at Break	>800%	GB/T 528-2009
Tear Strength	≥35kN/m	GB/T 529-2008

#### Features

- Continuous operating temperature: -60°C~200°C
- Shrink Ratio : 4:1 or so .Suits for an extensive range of cable sizes because of the shrinkage
- Retains its resiliency and pressure even after prolonged years of ageing and exposure, seals tight against moisture and water
- Good weather resistance, ozone ageing, ultraviolet and salt mist corrosion resistance, performs stably under long-period exposure to the sun
- Excellent tear resistance
- Simple installation, requires no special heating tools , and adhesive to seal the connections
- Standard color: black

#### Dimensions

Size	Inner Diameter (mm)	Min Cable Outer Diameter (mm)	Max Cable Outer Diameter (mm)	Full Recovered Length (mm)
VS13-2.4	Φ13	4.5	9.0	60
VS20-3	Φ20	6.0	15.0	76
VS25-1.5	Φ25	7.0	19.0	38
VS25-4	Φ25	7.0	19.0	100
VS28-4	Φ28	7.0	22.0	100
VS28-5	Φ28	7.0	22.0	127
VS32-7	Φ32	10.0	27.0	178
VS32-12	Φ32	10.0	27.0	305
VS35-6	Φ35	12.5	30.0	152
VS35-7	Φ35	12.5	30.0	178
VS35-12	Φ35	12.5	30.0	305
VS40-5	Φ40	14.0	33.0	127
VS40-5.5	Φ40	14.0	33.0	140
VS40-7	Φ40	14.0	33.0	180
VS40-12	Φ40	14.0	33.0	305
VS45-8	Φ45	14.0	39.0	203
VS45-9	Φ45	14.0	39.0	230

Size	Inner Diameter (mm)	Min Cable Outer Diameter (mm)	Max Cable Outer Diameter (mm)	Full Recovered Length (mm)
VS45-12	Φ45	14.0	39.0	305
VS53-6	Φ53	19.0	46.0	152
VS53-8	Φ53	19.0	46.0	203
VS53-9	Φ53	19.0	46.0	230
VS53-12	Φ53	19.0	46.0	305
VS60-6	Φ60	20.5	51.0	152
VS60-9	Φ60	20.5	51.0	230
VS60-12	Φ60	20.5	51.0	305
VS70-6	Φ70	25.0	63.0	152
VS70-8	Φ70	25.0	63.0	203
VS70-14	Φ70	25.0	63.0	356
VS80-7	Φ80	27.5	70.0	178
VS80-14	Φ80	27.5	70.0	356
VS90-10	Φ90	32.0	80.0	254
VS90-16	Φ90	32.0	80.0	406

Remark: Inner Diameter range: 13-160mm, Length range: 50-1200mm



## RUBLS-EPDM

### Cold Shrink EPDM Tube

#### Description

RUBLS-EPDM a series of open-ended, tubular rubber sleeves, which are factory expanded and assembled onto a removable core. They are supplied for field installation in this pre-stretched condition. The core is removed after the tube has been positioned for installation over an in line connection, terminal lug, etc., allowing the tube to shrink and form a waterproof seal. The insulating tube is made of EPDM rubber, which contains no chlorides or sulphurs. Various diameter sizes will cover a range of 1000 volt cables, copper and aluminum conductors.

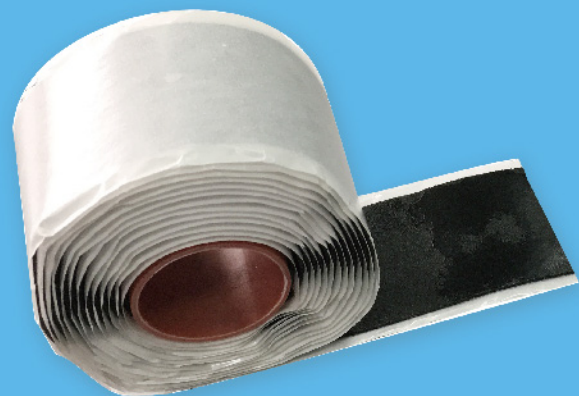
#### Features

- Shrink ratio:3.5:1
- IP68 waterproof grade
- UV resistant, weather resistant,Ozone Aging,Antimicrobia
- Standard color: Black

#### Dimensions

Size	Inner Diameter (mm)	Min Cable Outer Diameter (mm)	Max Cable Outer Diameter (mm)	Recovered Length L(mm)
VE18-3	Φ18	7.8	14.3	80
VE18-6	Φ18	7.8	14.3	152
VE18-7	Φ18	7.8	14.3	178
VE25-7	Φ25	10.1	20.9	178
VE25-8	Φ25	10.1	20.9	203
VE25-11	Φ25	10.1	20.9	279
VE25-12	Φ25	10.1	20.9	305
VE35-6	Φ35	13.9	30.1	152
VE35-8	Φ35	13.9	30.1	203
VE35-9	Φ35	13.9	30.1	229
VE35-11	Φ35	13.9	30.1	279
VE42-6	Φ42	16.8	35.1	152
VE42-8	Φ42	16.8	35.1	203
VE42-10	Φ42	16.8	35.1	254
VE42-12	Φ42	16.8	35.1	305
VE42-16	Φ42	16.8	35.1	406
VE42-18	Φ42	16.8	35.1	457
VE50-8	Φ50	13.5	43.7	203
VE58-6	Φ58	24.0	49.3	152
VE58-7	Φ58	24.0	49.3	178
VE58-8	Φ58	24.0	49.3	203

Size	Inner Diameter (mm)	Min Cable Outer Diameter (mm)	Max Cable Outer Diameter (mm)	Recovered Length L(mm)
VE58-10	Φ58	24.0	49.3	254
VE58-12	Φ58	24.0	49.3	305
VE58-18	Φ58	24.0	49.3	457
VE58-24	Φ58	24.0	49.3	610
VE58HP-10	Φ58	20.5	51.0	254
VE65-10	Φ65	23.7	57.5	254
VE77-6	Φ77	32.2	67.8	152
VE77-7	Φ77	32.2	67.8	178
VE77-9	Φ77	32.2	67.8	229
VE77-12	Φ77	32.2	67.8	305
VE77-13	Φ77	32.2	67.8	330
VE77-14	Φ77	32.2	67.8	355
VE77-18	Φ77	32.2	67.8	457
VE77-22	Φ77	32.2	67.8	550
VE77HP-13	Φ77	27.4	70.0	330
VE105-8	Φ105	42.6	93.7	203
VE105-9	Φ105	42.6	93.7	229
VE105-18	Φ105	42.6	93.7	457
VE105-20	Φ105	42.6	93.7	508
VE120-24	Φ120	33.0	114.3	610
VE160-24	Φ160	60.0	154.0	610



## FST6080 Waterproof Insulation Tape

### Description

Washing waterproof insulating tape is composed of ethylene propylene rubber and butyl rubber, with strong self-melting adhesiveness and excellent waterproof and electrical insulation properties. Good shape, comfortable operation, no corrosiveness to copper, aluminum and various cable sheath materials, good viscosity, wide application temperature range, rated working temperature 90°C, can withstand emergency overload temperature 130°C, suitable for all kinds of electrical Waterproof insulation and sealing of equipment and cable joints.

### Features

- It can be used as the waterproof insulation of overhead line conductor joints
- Repair and restoration of the waterproof layer of the outer sheath of the cable
- Insulation protection and waterproof for voltage ≤ 35KV busbar
- Suitable for main insulation and waterproof sealing of 1KV cables and joints and terminals
- It can be used both indoors and outdoors. It is recommended to use it together with anti-UV tape for better outdoor use
- Standard color: black

### Technical Performance

Properties	Standard	Test method
Tensile Strength	≥3.0MPa	ASTM D 4325
Elongation at break	≥500%	ASTM D 4325
Dielectric Strength	22.5Kv/mm	ASTM D 4325
Stickiness (steel plate)	32N/50mm	ASTM D 1000
Ozone Aging	Pass	ASTM D 4325
UV radiation exposure aging	Pass	ASTM D 4325
Xenon lamp radiation exposure aging	Pass	ISO 4892-2:2013

### Dimensions

Model	Width(mm)	Thickness(mm)	Length(m)	Package(Roll/Ctn)
VW-M1	50	1.65	3	20



## Self-Fusing Silicone Tape

### Description

Has good ductility, good insulation performance, and can work for a long time at -60°C-180°C. It is resistant to aging, ozone and ultraviolet. Excellent physical properties, good tensile resilience, good low temperature performance. It is widely used in the insulation protection of cable joints, switch cabinet bus bars, fireproof cable coating, and protective wrapping under harsh environments.

### Features

- Operating temperature: -60°C~+180°C
- Flame retardant rating: V0 (UL 94)
- Hardness: 53A
- Standard color: Red, Yellow, Blue, Green, White, Black

### Technical Performance

Properties	Index	Test Method
Tensile strength	≥3.5MPa	ASTM D 412
Elongation at break	≥300%	ASTM D 412
Dielectric strength	≥25kV	ASTM D 149
Self-adhesive	13.7N/cm (Typical data)	GB/T 20631.2-2006
Water absorption	0.35%	ASTM D 570
Flame retardant rating	V0	UL 94
Volume resistivity	≥1.0×10 <sup>14</sup> Ω.cm	ASTM D 876

### Dimensions

Size	Width(mm)	Thickness(mm)	Package(M/Roll)
25*0.8	25	0.8	5/Custom-made
25*1.0	25	1.0	5/Custom-made
50*0.5	50	0.5	5/Custom-made
50*0.7	50	0.7	5/Custom-made
50*0.8	50	0.8	5/Custom-made
50*1.8	50	1.8	Custom-made
80*1.8	80	1.8	Custom-made
100*1.8	100	1.8	Custom-made



## BWG-PA6

### Seal Type Corrugated Pipe

#### Description

It's made of high quality nylon materials, with excellent physics and chemical electrical properties. Mainly used in the industries such as mechanical manufacturing, electric insulation Protection, lighting equipment, aerospace equipment and etc.

#### Features

- Material: NylonPA6
- Working temperature: -40°C~125°C(Up to 150 °C in a short time)
- Flame retardant rating: V0/V2(UL94)
- Structure: Wavy shape both interior and exterior
- Performance: Good flexibility, anti - distortion, good bending performance, can withstand heavy load. Acid resistance, lubricating oil, coolant, etc.Glossy surface, resistance to friction.
- Certification: RoHS, Non-phosphorus.
- Standard color: Black, Orange.

#### Dimensions

Model	Inner Diameter(mm)	Outer Diameter(mm)	Bending Radius(mm)	Standard Packing (meter)
AD-7.0	5.0±0.5	7.0±0.5	15	500
AD-7.5	5.5±0.5	7.5±0.5	15	500
AD-9.0	6.0±0.5	9.0±0.5	15	500
AD-10.0	7.0±0.5	10.0±0.5	25	500
AD-11.0	8.0±0.5	11.0±0.5	25	500
AD-12.0	9.0±0.5	12.0±0.5	25	500
AD-13.0	10.0±0.5	13.0±0.5	30	500
AD-14.0	11.0±0.5	14.0±0.5	30	200
AD-15.8	12.0±0.5	15.8±0.5	35	100/200
AD-17.0	13.0±0.5	17.0±0.5	35	100/200
AD-18.5	14.3±0.5	18.5±0.5	45	100/200
AD-19.0	15.0±0.5	19.0±0.5	45	100/200
AD-20.0	16.0±0.5	20.0±0.5	50	100/200
AD-21.2	17.0±0.5	21.2±0.5	50	100/200
AD-22.0	18.0±0.5	22.0±0.5	50	100
AD-24.0	19.0±0.5	24.0±0.5	50	100
AD-25.0	20.0±0.5	25.0±0.5	55	100
AD-27.0	22.0±0.5	27.0±0.5	55	100
AD-28.5	23.0±0.5	28.5±0.5	60	100
AD-30.0	25.0±0.5	30.0±0.5	65	100
AD-32.0	27.0±0.5	32.0±0.5	65	100
AD-34.5	29.0±0.5	34.5±0.5	65	100
AD-42.5	36.0±0.5	42.5±0.5	80	50
AD-54.5	48.0±0.5	54.5±0.5	90	25



## BWG-PP

### Seal Type Corrugated Pipe

#### Description

It's made of high quality polypropylene materials, with excellent physics and chemical electrical properties. Mainly used in the industries such as mechanical manufacturing, electric insulation Protection, lighting equipment, aerospace equipment and etc.

#### Features

- Material: Polypropylene (PP) Working temperature: -40°C~110°C (Up to 130 °C in a short time)
- Flame retardant rating: V0/V2(UL94)
- Structure: Wavy shape both interior and exterior
- Performance: Good flexibility, anti - distortion, good bending performance, can withstand heavy load. Acid resistance, lubricating oil, coolant, etc.Glossy surface, resistance to friction.
- Certification: RoHS, Non-phosphorus
- Standard color: Black, Orange.

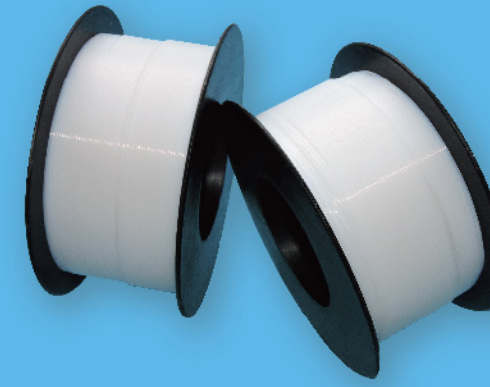
#### Dimensions

Model	Inner Diameter(mm)	Outer Diameter(mm)	Bending Radius(mm)	Standard Packing (meter)
AD-7.0	5.0±0.5	7.0±0.5	15	500
AD-7.5	5.5±0.5	7.5±0.5	15	500
AD-9.0	6.0±0.5	9.0±0.5	15	500
AD-10.0	7.0±0.5	10.0±0.5	25	500
AD-11.0	8.0±0.5	11.0±0.5	25	500
AD-12.0	9.0±0.5	12.0±0.5	25	500
AD-13.0	10.0±0.5	13.0±0.5	30	500
AD-14.0	11.0±0.5	14.0±0.5	30	200
AD-15.8	12.0±0.5	15.8±0.5	35	100/200
AD-17.0	13.0±0.5	17.0±0.5	35	100/200
AD-18.5	14.3±0.5	18.5±0.5	45	100/200
AD-19.0	15.0±0.5	19.0±0.5	45	100/200
AD-20.0	16.0±0.5	20.0±0.5	50	100/200
AD-21.2	17.0±0.5	21.2±0.5	50	100/200
AD-22.0	18.0±0.5	22.0±0.5	50	100
AD-24.0	19.0±0.5	24.0±0.5	50	100
AD-25.0	20.0±0.5	25.0±0.5	55	100
AD-27.0	22.0±0.5	27.0±0.5	55	100
AD-28.5	23.0±0.5	28.5±0.5	60	100
AD-30.0	25.0±0.5	30.0±0.5	65	100
AD-32.0	27.0±0.5	32.0±0.5	65	100
AD-34.5	29.0±0.5	34.5±0.5	65	100
AD-42.5	36.0±0.5	42.5±0.5	80	50
AD-54.5	48.0±0.5	54.5±0.5	90	25



## NS-SIL200

Silicone Tube  
(Electronic grade, Food grade, Medical grade)



## NS-PTFE200

Teflon(PTFE) Tubing

### Description

Electronic grade silicone tube is made of superior quality silicone rubber through scientific formula of the raw materials and special technology. Soft, heat resistance, stable performance. Used for high temperature resistance insulation treatment, arc resistance treatment, corona

### Features

- High temperature resistance, corona resistance, soft
- RoHS Compliant
- Operating temperature: -60°C~200°C

### Technical Performance

Property	Typical Data	Test Method
Dielectric strength	≥18kV/mm	GB/T 1048
Volume resistivity	≥10 <sup>14</sup> Ω.cm	GB/T 1410
Tear Strength	≥27kN/m	GB/T 1040
Elongation at break	≥200%	GB/T 1040

### Dimensions

Size	ID tolerance	OD tolerance	Wall thickness tolerance
0.8*1.8	0.05	0.05	0.05
1.0*2.0	0.05	0.05	0.05
1.2*2.2	0.05	0.05	0.05
1.5*2.5	0.05	0.05	0.05
2.0*3.0	0.05	0.05	0.05
2.5*3.5	0.05	0.05	0.05
3.0*4.0	0.05	0.05	0.05
3.5*4.5	0.05	0.05	0.05
4.0*5.0	0.05	0.05	0.05
5.0*6.0	0.05	0.05	0.05
6.0*7.0	0.05	0.05	0.05
7.0*8.4	0.1	0.1	0.1
8.0*9.4	0.1	0.1	0.1
9.0*10.6	0.2	0.2	0.2
10*11.6	0.2	0.2	0.2
11.0*13.0	0.2	0.2	0.2
12.0*14.0	0.2	0.2	0.2
13.0*15.0	0.2	0.2	0.2
14.0*16.0	0.2	0.2	0.2
15.0*17.0	0.2	0.2	0.2
16.0*18.0	0.2	0.2	0.2
17.0*19.0	0.2	0.2	0.2
18.0*20.0	0.2	0.2	0.2
19.0*22.0	0.3	0.3	0.3
20.0*23.0	0.3	0.3	0.3

The smallest ID: φ3mm  
 The smallest wall thickness: 0.15mm  
 The biggest OD: φ80mm  
 The biggest wall thickness: 2mm  
 Size (ID, OD): Customizable  
 Color: Customizable  
 Hardness: Shore Hardness 30A~80A  
 Font and LOGO can be printed as required

### Description

Teflon tubing, is made of superior polytetrafluoroethylene. Excellent electrical insulation, high flame retardant and self-lubricating properties, high temperature resistance, resistance to almost all oils and chemicals. Widely used in electrical insulation, electronic communication, automotive, military, aerospace and other fields.

### Features

- High temperature Resistance
- High flame retardant
- Resistant to corrosion, strong acid, strong base, chemical reagents, and oil etc
- Continuous operating temperature: -65°C~260°C
- RoHS compliant
- Standard color: Translucence, other colors are available on request.

### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥25MPa	ASTM D 2671
Elongation at break	≥300%	ASTM D 2671
Flammability	VW-1	UL 224
Dielectric strength	≥26kV/mm	IEC 60243
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093
Cope corrosion	Pass	UL 224
Water absorption	<0.1%	ASTM D 570

### Dimensions

Size (AWG)	Inner diameter d(mm)	Outer diameter D(mm)			Standard Package (M/roll, M/pcs)
		Outer diameter(S)	Outer diameter(T)	Outer diameter (L)	
30	0.30±0.10	0.80±0.10	0.70±0.10	0.60±0.10	305M/Roll
28	0.38±0.10	0.88±0.10	0.78±0.10	0.68±0.10	305M/Roll
26	0.46±0.10	0.96±0.10	0.86±0.10	0.76±0.10	305M/Roll
24	0.56±0.10	1.16±0.10	1.06±0.10	0.86±0.10	305M/Roll
23	0.66±0.10	1.26±0.10	1.16±0.10	0.96±0.10	305M/Roll
22	0.71±0.10	1.31±0.10	1.21±0.10	1.01±0.10	305M/Roll
21	0.81±0.10	1.41±0.10	1.31±0.10	1.11±0.10	305M/Roll
20	0.86±0.10	1.66±0.10	1.46±0.10	1.16±0.10	305M/Roll
19	0.96±0.20	1.76±0.20	1.56±0.20	1.26±0.20	200M/Roll
18	1.07±0.20	1.87±0.20	1.67±0.20	1.37±0.20	200M/Roll
17	1.19±0.20	1.99±0.20	1.79±0.20	1.49±0.20	200M/Roll
16	1.34±0.20	2.14±0.20	1.94±0.20	1.64±0.20	153M/Roll
15	1.50±0.20	2.30±0.20	2.10±0.20	1.80±0.20	153M/Roll
14	1.68±0.20	2.48±0.20	2.28±0.20	2.08±0.20	100M/Roll
13	1.93±0.20	2.73±0.20	2.53±0.20	2.33±0.20	100M/Roll
12	2.16±0.25	2.96±0.25	2.77±0.25	2.60±0.25	100M/Roll
11	2.41±0.25	3.21±0.25	3.01±0.25	2.81±0.25	150M/Roll
10	2.69±0.25	3.49±0.25	3.29±0.25	3.01±0.25	150M/Roll
9	3.00±0.25	4.00±0.25	3.80±0.25	3.40±0.25	150M/Roll
8	3.38±0.25	4.38±0.25	4.18±0.25	3.80±0.25	100M/Roll
7	3.76±0.25	4.76±0.25	4.56±0.25	4.20±0.25	100M/Roll
6	4.22±0.25	5.22±0.25	4.92±0.25	4.70±0.25	100M/Roll
5	4.72±0.25	5.72±0.25	5.42±0.25	5.32±0.25	50M/Roll
4	5.28±0.30	6.28±0.30	6.02±0.30	5.88±0.25	50M/Roll
3	5.94±0.30	6.94±0.30	6.74±0.30	6.54±0.25	1.0M/Piece
2	6.68±0.30	7.68±0.30	7.48±0.30	7.28±0.25	1.0M/Piece
1	7.46±0.30	8.46±0.30	8.29±0.30	8.06±0.25	1.0M/Piece
0	8.38±0.30	9.36±0.30	9.18±0.30	8.98±0.25	1.0M/Piece



## DBRS-125H (2X) (3X)

### Halogen-free Flame Retardant Heat Shrink Tube

#### Description

Halogen-free fire retardant heat shrinkable tubing, made of radiation cross-linked polyolefin, is designed with excellent physicochemical and electrical properties. Typical applications include insulation of electrical connections or wire splices, rust and corrosion resistance for the soldered joints or connections, mechanical and wiring harness protection and insulation in electronics, communications, automotive, marine, aircraft manufacturing and other fields.

#### Features

- Shrink ratio : 2:1, 3:1
- Halogen-free , low-smoke , non-toxic , flexible , flame retardant(Clear color is non-flame retardant)
- Shrink temperature : 84 °C~120 °C (Clear color:70 °C~105 °C)
- Continuous operating temperature : -55 °C ~ 125°C (Clear color: -55 °C ~ 105°C)
- Environmental standard : RoHS , IPC/JEDEC-J-STD-709
- Executive standard: UL 224, CAN/CSA C22.2 NO198.1-99
- Standard colors: Black, White, Red , Yellow ,Green, Blue ,Clear. More colors are available on request.

#### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥200%	ASTM D 2671
Tensile strength after heat aging	≥7.3MPa	158°C×168h
Elongation at break after heat aging	≥100%	158°C×168h
Longitudinal change	-5% ~ +5%	ASTM D 2671
Flammability	VW-1	ASTM D 2671 C
Voltage withstand(Rated voltage 600V)	2500V,1min, without breakdown	UL 224
Heat shock	No cracking, no dripping	UL 224, 250°C×4h
Breakdown strength	≥15kV/mm	ASTM D 149
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

#### Dimensions (2:1)

Size(mm)	As supplied D (mm)	Size after fully recovery(mm)		Standard package (M/Roll)
		Internal diameter d	Wall thickness w	
φ0.5/0.35	0.7±0.2	≤0.35	0.33±0.10	400
φ0.6/0.40	0.9±0.2	≤0.40	0.33±0.10	400
φ0.8/0.50	1.1±0.2	≤0.50	0.33±0.10	400
φ1.0/0.65	1.5±0.2	≤0.65	0.36±0.10	400
φ1.5/0.85	2.0±0.2	≤0.85	0.36±0.10	400
φ2.0/1.00	2.5±0.2	≤1.00	0.45±0.10	400
φ2.5/1.30	3.0±0.2	≤1.30	0.45±0.10	400
φ3.0/1.50	3.5±0.2	≤1.50	0.45±0.10	400
φ3.5/1.80	4.0±0.2	≤1.80	0.45±0.10	400
φ4.0/2.00	4.5±0.2	≤2.00	0.45±0.10	400
φ4.5/2.30	5.0±0.2	≤2.30	0.45±0.10	200
φ5.0/2.50	5.5±0.2	≤2.50	0.56±0.10	200
φ5.5/2.75	6.0±0.2	≤2.75	0.56±0.10	200
φ6.0/3.00	6.5±0.2	≤3.00	0.56±0.10	200
φ7.0/3.50	7.5±0.3	≤3.50	0.56±0.10	100
φ8.0/4.00	8.5±0.3	≤4.00	0.56±0.10	100
φ9.0/4.50	9.5±0.3	≤4.50	0.56±0.10	100
φ10/5.00	10.5±0.3	≤5.00	0.56±0.10	100
φ11/5.50	11.5±0.3	≤5.50	0.56±0.10	100
φ12/6.00	12.5±0.3	≤6.00	0.56±0.10	100
φ13/6.50	13.5±0.3	≤6.50	0.70±0.10	100
φ14/7.00	14.5±0.3	≤7.00	0.70±0.10	100
φ15/7.50	15.5±0.4	≤7.50	0.70±0.10	100
φ16/8.00	16.5±0.4	≤8.00	0.70±0.10	100
φ17/8.50	17.5±0.4	≤8.50	0.70±0.10	100
φ18/9.00	19.0±0.5	≤9.00	0.70±0.10	100

#### Dimensions (2:1)

Size(mm)	As supplied D (mm)	Size after fully recovery(mm)		Standard package (M/Roll)
		Internal diameter d	Wall thickness w	
φ20/10.0	22.0±0.5	≤10.0	0.80±0.15	100
φ22/11.0	24.0±0.5	≤11.0	0.80±0.15	100
φ25/12.5	26.0±0.5	≤12.5	0.90±0.15	50
φ28/14.0	29.0±0.5	≤14.0	0.90±0.15	50
φ30/15.0	31.5±1.0	≤15.0	1.00±0.15	50
φ35/17.5	36.5±1.0	≤17.5	1.00±0.15	50
φ40/20.0	41.5±1.0	≤20.0	1.00±0.15	50
φ45/22.5	≥45.0	≤22.5	1.00±0.15	25
φ50/25.0	≥50.0	≤25.0	1.10±0.15	25
φ60/30.0	≥60.0	≤30.0	1.20±0.15	25
φ70/35.0	≥70.0	≤35.0	1.30±0.20	25
φ80/40.0	≥80.0	≤40.0	1.30±0.20	25
φ90/45.0	≥90.0	≤45.0	1.30±0.20	25
φ100/50.0	≥100.0	≤50.0	1.30±0.20	25
φ120/60.0	≥120.0	≤60.0	1.30±0.20	25
φ150/75.0	≥150.0	≤75.0	1.30±0.20	25
φ180/90.0	≥180.0	≤90.0	1.30±0.20	25
φ210/105.0	≥210.0	≤105.0	1.30±0.30	25
φ230/115.0	≥230.0	≤115.0	1.30±0.30	25
φ250/125.0	≥250.0	≤125.0	1.30±0.30	25
φ300/150.0	≥300.0	≤150.0	1.30±0.30	25

#### Dimensions (3:1)

Size(mm)	As supplied D	Size after fully recovery(mm)		Standard Package (M/Roll)
		Internal diameter d	Wall thickness w	
φ1.5/0.5	≥1.5	≤0.50	0.45±0.10	200
φ3.0/1.0	≥3.0	≤1.00	0.55±0.10	100
φ4.5/1.5	≥4.5	≤1.50	0.60±0.10	100
φ6.0/2.0	≥6.0	≤2.00	0.65±0.10	100
φ9.0/3.0	≥9.0	≤3.00	0.75±0.15	100
φ12/4	≥12.0	≤4.00	0.75±0.15	100
φ15/5	≥15.0	≤5.00	0.80±0.15	100
φ18/6	≥18.0	≤6.00	0.85±0.15	100
φ24/8	≥24.0	≤8.00	1.00±0.20	50
φ30/10	≥30.0	≤10.0	1.15±0.20	50
φ39/13	≥39.0	≤13.0	1.50±0.20	50
φ50/16	≥50.0	≤16.0	2.50±0.20	25
φ60/20	≥60.0	≤20.0	2.60±0.20	25
φ70/23	≥70.0	≤23.0	2.60±0.20	25
φ80/26	≥80.0	≤26.0	2.60±0.20	25
φ90/30	≥90.0	≤30.0	2.60±0.20	25
φ100/33	≥100.0	≤33.0	2.60±0.20	25

Note: Non-standard dimensions and packages also available on your request



## DBRS-125H (2X) CB

### Halogen-free Ultra-thin Flame Retardant Heat Shrink Tube

#### Description

Halogen-free ultra-thin flame retardant heat-shrink tubing, made of radiation cross-linked polyolefin, carries excellent physicochemical and electrical properties. Typical applications include insulation of electrical connections, rust and corrosion resistance for soldered connections or joints, mechanical and wiring harness protection. Widely used in the automotive, electronics, life consumables, decoration and lighting, communications, other fields.

#### Features

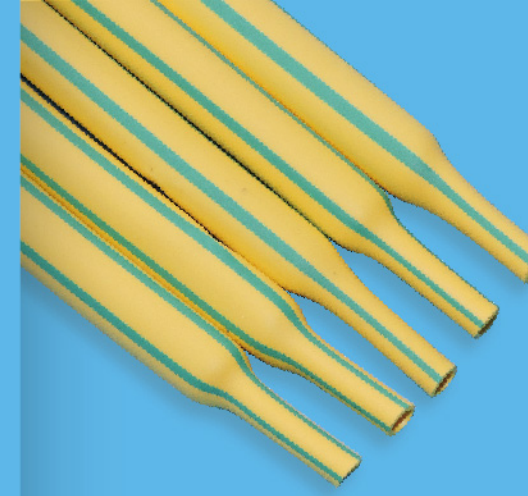
- Shrink ratio : 2:1
- Halogen-free , low-smoke , non-toxic , flexible , flame retardant(Clear color is non-flame retardant), shrinking quickly
- Shrink temperature : 70 °C~120 °C
- Continuous operating temperature : -55 °C ~ 125°C (Clear color: -55 °C ~ 105°C)
- Environmental standard : RoHS , IPC/JE-DEC-J-STD-709
- Executive standard: UL 224, CAN/CSA C22.2 NO198.1-99
- Standard colors: Black, White, Red , Yellow ,Green, Blue ,Clear. More colors are available on request.

#### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥200%	ASTM D 2671
Tensile strength after heat aging	≥7.3MPa	158°C×168h
Elongation at break after heat aging	≥100%	158°C×168h
Longitudinal change	-5%~+5%	ASTM D 2671
Flammability	VW-1	ASTM D 2671 C
Voltage withstand(Rated voltage 300V)	1500V, 1min, without breakdown	UL 224
Heat shock	No cracking, no dripping	UL 224, 250°C×4h
Breakdown strength	≥15kV/mm	ASTM D 149
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

#### Dimensions

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
φ0.6/0.40	0.9±0.2	≤0.40	0.20±0.10	200
φ0.8/0.50	1.1±0.2	≤0.50	0.20±0.10	200
φ1.0/0.65	1.4±0.2	≤0.65	0.20±0.10	200
φ1.5/0.85	1.9±0.2	≤0.85	0.20±0.10	200
φ2.0/1.00	2.4±0.2	≤1.00	0.22±0.10	200
φ2.5/1.30	2.9±0.2	≤1.30	0.25±0.10	200
φ3.0/1.50	3.4±0.2	≤1.50	0.28±0.10	200
φ3.5/1.80	3.9±0.2	≤1.80	0.28±0.10	200
φ4.0/2.00	4.4±0.2	≤2.00	0.30±0.10	200
φ4.5/2.30	4.9±0.2	≤2.30	0.30±0.10	100
φ5.0/2.50	5.5±0.2	≤2.50	0.32±0.10	100
φ6.0/3.00	6.5±0.2	≤3.00	0.32±0.10	100
φ7.0/3.50	7.5±0.3	≤3.50	0.32±0.10	200
φ8.0/4.00	8.5±0.3	≤4.00	0.32±0.10	200
φ9.0/4.50	9.5±0.3	≤4.50	0.35±0.10	200
φ10/5.00	10.5±0.3	≤5.00	0.35±0.10	200
φ11/5.50	11.5±0.3	≤5.50	0.40±0.10	200
φ12/6.00	12.5±0.3	≤6.00	0.40±0.10	200
φ13/6.50	13.5±0.3	≤6.50	0.40±0.10	200
φ14/7.00	14.5±0.3	≤7.00	0.40±0.10	200
φ15/7.50	15.5±0.4	≤7.50	0.40±0.10	200
φ16/8.00	16.5±0.4	≤8.00	0.40±0.10	200
φ17/8.50	17.5±0.4	≤8.50	0.40±0.10	200
φ18/9.00	18.5±0.4	≤9.00	0.42±0.10	200
φ20/10.0	20.5±0.5	≤10.0	0.45±0.10	200
φ22/11.0	22.5±0.5	≤11.0	0.45±0.10	200
φ25/12.5	25.5±0.5	≤12.5	0.45±0.10	100
φ28/14.0	28.5±0.5	≤14.0	0.60±0.10	100



## DBRS-125G (2X) YG

### Yellow/Green Stripe Heat Shrink Tube

#### Description

DBRS-125G(2X)YG is made through co-extrusion of two different colored specially formulated master batches of polyolefin and irradiation cross-linking process with electronic accelerators. Bright color, excellent physical and chemical electrical properties. Mainly used for the identification of earth wire or other special cables,wires and pipeline, etc.

#### Features

- Shrink Ratio: 2:1
- High flame retardant, environment friendly
- Shrink temperature: 70°C~125°C
- Continuous operating temperature: -55°C~125°C
- RoHS compliant
- Standard colors: Yellow/Green Striped

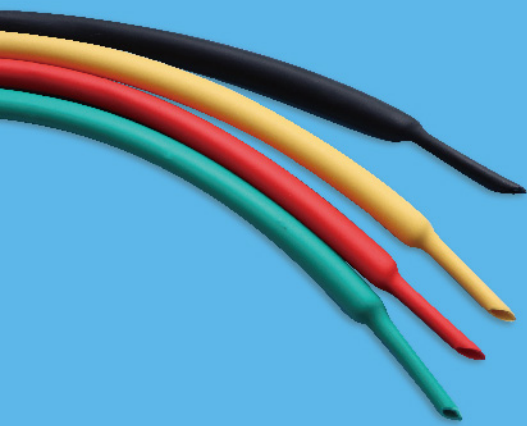
#### Dimensions

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
φ1.0/0.70	1.5±0.3	≤0.70	0.28±0.10	200
φ1.5/0.90	2.0±0.3	≤0.90	0.30±0.10	200
φ2.0/1.00	2.5±0.3	≤1.00	0.35±0.10	200
φ2.5/1.30	3.0±0.3	≤1.30	0.36±0.10	200
φ3.0/1.50	3.5±0.4	≤1.50	0.38±0.10	200
φ3.5/1.80	4.0±0.4	≤1.80	0.40±0.10	200
φ4.0/2.00	4.5±0.4	≤2.00	0.45±0.10	200
φ4.5/2.30	5.0±0.4	≤2.30	0.45±0.10	100
φ5.0/2.50	5.5±0.4	≤2.50	0.45±0.10	100
φ6.0/3.00	6.5±0.4	≤3.00	0.50±0.10	100
φ7.0/3.50	7.5±0.4	≤3.50	0.50±0.10	100
φ8.0/4.00	8.5±0.5	≤4.00	0.55±0.10	100
φ9.0/4.50	9.5±0.5	≤4.50	0.55±0.10	100
φ10/5.00	10.5±0.5	≤5.00	0.55±0.10	100
φ11/5.50	11.5±0.5	≤5.50	0.60±0.10	100
φ12/6.00	12.5±0.5	≤6.00	0.60±0.10	100
φ13/6.50	13.5±0.5	≤6.50	0.60±0.10	100
φ14/7.00	14.5±0.5	≤7.00	0.65±0.10	100
φ15/7.50	15.5±0.6	≤7.50	0.70±0.10	100
φ16/8.00	16.5±0.6	≤8.00	0.70±0.10	100

#### Technical Performance

Properties	Typical Data	Test Methods/conditions
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥300%	ASTM D 2671
Tensile strength after heat aging	≥7.3MPa	158°C×168h
Elongation at break after heat aging	≥100%	158°C×168h
Longitudinal change	-8%~+8%	ASTM D 2671
Flammability	VW-1	ASTM D 2671 C
Voltage withstand(Rated voltage 600V)	2500V, 1min, no break down	UL 224
Heat shock	No cracks, no dripping	UL 224, 250°C×4h
Dielectric strength	≥15kV/mm	ASTM D 149
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
φ17/8.50	17.5±0.6	≤8.50	0.70±0.10	100
φ18/9.00	19.0±0.7	≤9.00	0.70±0.15	100
φ20/10.0	22.0±0.7	≤10.0	0.75±0.15	100
φ22/11.0	24.0±0.7	≤11.0	0.80±0.15	100
φ25/12.5	26.0±0.7	≤12.5	0.90±0.15	50
φ28/14.0	29.0±0.7	≤14.0	0.90±0.15	50
φ30/15.0	31.5±0.7	≤15.0	0.95±0.15	50
φ35/17.5	36.5±0.7	≤17.5	0.95±0.15	50
φ40/20.0	41.5±0.7	≤20.0	1.00±0.20	50
φ45/22.5	46.0±0.7	≤22.5	1.00±0.20	25
φ50/25.0	51.0±0.7	≤25.0	1.00±0.20	25
φ60/30.0	≥60.0	≤30.0	1.10±0.20	25
φ70/35.0	≥70.0	≤35.0	1.20±0.20	25
φ80/40.0	≥80.0	≤40.0	1.30±0.20	25
φ90/45.0	≥90.0	≤45.0	1.50±0.20	25
φ100/50.0	≥100.0	≤50.0	1.65±0.20	25
φ120/60.0	≥120.0	≤60.0	1.70±0.20	15
φ150/75.0	≥150.0	≤75.0	1.70±0.20	15
φ180/90.0	≥180.0	≤90.0	1.75±0.20	15



## SBRS-110G (3X) (4X) NF

### Non-Flame Retardant Adhesive Lined Dual Wall Heat Shrink Tube

#### Description

SBRS-110G(3X)(4X)NF is composed of double layers of radiation cross-linked polyolefin material and hot melt adhesive. The outer layer of polyolefin is insulated and has excellent physical, chemical and electrical properties. The inner layer of hot melt adhesive has strong cushioning mechanical strain and strong sealing. The main functions are insulation, sealing, waterproofing, anti-corrosion, and air leakage. It is widely used in sealing insulation, waterproof and anti-corrosion of various wire harnesses, wires and cables and metal pipe rods.

#### Features

- Shrink ratio: 3:1, 4:1
- Flexible, non-flame retardant, environmentally friendly, UV resistance
- Shrink temperature: 70°C~100°C
- Operating temperature: -45°C~110°C ( -45°C~105°C for clear)
- RoHS compliant
- Standard colors: Black, White, Red, Yellow, Green, Blue, Clear. More colors are available upon request.

#### Technical Performance

Property	Typical Data	Test Method/Condition
Tensile Strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥300%	ASTM D 2671
Tensile Strength after Heat aging	≥7.3MPa	158°C×168h
Elongation at break after Heat aging	≥100%	158°C×168h
Longitudinal Change	-8%~+8%	ASTM D 2671
Flammability	Non flame retardant	-
Breakdown strength	≥15kV/mm	IEC 60243
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

#### Technical Performance of Adhesive

Property	Typical Data	Test Method/Condition
Softening point	95±5°C	ASTM E 28
Water absorption	<0.5%	ASTM D 570
Peel strength(PE)	≥120N/25mm	ASTM D 1000
Peel strength(Al)	≥80N/25mm	ASTM D 1000

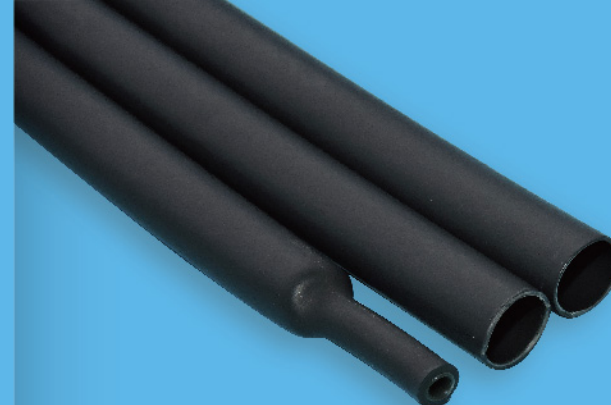
#### Dimensions (3:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)			Standard Package (M/Roll, M/Pcs)
		Inner diameter d	Wall thickness w1	The wall thickness of adhesive-layer w2	
Φ2.4	≥2.4	≤0.80	0.90±0.15	0.35±0.10	200
Φ3.2	≥3.2	≤1.00	0.95±0.15	0.40±0.10	200
Φ4.8	≥4.8	≤1.60	1.10±0.15	0.40±0.10	100
Φ6.4	≥6.4	≤2.20	1.20±0.15	0.45±0.10	100
Φ7.9	≥7.9	≤2.70	1.35±0.15	0.50±0.10	100
Φ9.5	≥9.5	≤3.20	1.45±0.20	0.50±0.15	50
Φ12.7	≥12.7	≤4.20	1.70±0.20	0.50±0.15	25
Φ15.0	≥15.0	≤5.20	1.80±0.20	0.55±0.15	25
Φ19.1	≥19.1	≤6.30	2.00±0.20	0.55±0.15	25
Φ25.4	≥25.4	≤8.50	2.10±0.25	0.55±0.15	25
Φ30.0	≥30.0	≤10.2	2.20±0.25	0.60±0.15	1.22
Φ39.0	≥39.0	≤13.5	2.40±0.25	0.60±0.15	1.22
Φ50.0	≥50.0	≤17.0	2.70±0.25	0.80±0.15	1.22
Φ64.0	≥64.0	≤21.0	3.00±0.30	0.80±0.20	1.22
Φ76.0	≥76.0	≤25.0	3.00±0.30	1.00±0.20	1.22
Φ90.0	≥90.0	≤30.0	3.00±0.30	1.00±0.20	1.22
Φ100	≥100	≤34.0	3.00±0.30	1.00±0.20	1.22
Φ125	≥125	≤42.0	3.00±0.30	1.00±0.15	1.22

#### Dimensions (4:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)			Standard Package (M/Roll, M/Pcs)
		Inner diameter d	Wall thickness w1	The wall thickness of adhesive-layer w2	
Φ4.0	≥4.0	≤1.00	1.00±0.15	0.40±0.15	200
Φ6.0	≥6.0	≤1.50	1.10±0.15	0.40±0.15	100
Φ8.0	≥8.0	≤2.00	1.20±0.15	0.50±0.15	100
Φ12.0	≥12.0	≤3.00	1.40±0.15	0.50±0.15	25
Φ16.0	≥16.0	≤4.00	1.70±0.15	0.60±0.15	25
Φ20.0	≥20.0	≤5.00	2.00±0.25	0.60±0.15	25
Φ24.0	≥24.0	≤6.00	2.10±0.25	0.60±0.15	25
Φ32.0	≥32.0	≤8.00	2.40±0.25	0.70±0.15	1.22
Φ52.0	≥52.0	≤13.0	2.40±0.25	0.70±0.15	1.22

Note: Non-standard dimensions and packages are available on your request



## SBRS-125G (3X) (4X)

### Flame Retardant Adhesive Lined Dual Wall Heat Shrink Tube

#### Description

SBRS-125G(2X) (3X) (4X) is composed of double layers of radiation cross-linked polyolefin material and hot melt adhesive. The outer layer of polyolefin is insulated and has excellent physical, chemical and electrical properties. The inner layer of hot melt adhesive has strong cushioning mechanical strain and strong sealing. The main functions are insulation, sealing, waterproofing, anti-corrosion, and air leakage. It is widely used in sealing insulation, waterproof and anti-corrosion of various wire harnesses, wires and cables and metal pipe rods.

#### Features

- Shrink ratio: 3:1, 4:1
- Flexible, Flame retardant out layer (non-flame retardant for clear), environmentally friendly, UV resistant
- Shrink temperature:80°C~110°C
- Operating temperature:-45°C ~125°C
- RoHS compliant
- Standard colors: Black, White, Red, Yellow, Green, Blue. More colors are available upon request.

#### Technical Performance

Property	Typical data	Test method/condition
Tensile strength	≥12MPa	ASTM D 2671
Elongation at break	≥400%	ASTM D 2671
Tensile strength after heat aging	≥11MPa	158°C×168h
Elongation at break after heat aging	≥350%	158°C×168h
Longitudinal change	0~-10%	ASTM D 2671
Flammability	Self extinguishing in 30 sec.	AMS-DTL-23053/4
Breakdown strength	≥15kV/mm	IEC 60243
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

#### Technical Performance of Adhesive

Property	Typical data	Test method/condition
Softening point	95±5°C	ASTM E 28
Water absorption	<0.5%	ASTM D 570
Peel strength(PE)	≥120N/25mm	ASTM D 1000
Peel strength(Al)	≥80N/25mm	ASTM D 1000

#### Dimensions (3:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)			Standard Package (M/Roll or M/Pcs)
		Inner diameter d	Wall thickness w1	Thickness of adhesive layer w2	
Φ3.0(3.2)	≥3.0	≤1.00	≥1.00	0.50	200
Φ4.8	≥4.8	≤1.50	≥1.00	0.50	100
Φ6.0(6.4)	≥6.0	≤2.00	≥1.00	0.50	100
Φ7.9	≥7.9	≤2.70	≥1.30	0.50	100
Φ9.0(9.5)	≥9.0	≤3.00	≥1.40	0.60	50
Φ12.0(12.7)	≥12.0	≤4.00	≥1.60	0.80	25
Φ15.0	≥15.0	≤5.00	≥1.80	0.80	25
Φ19.0(19.1)	≥19.0	≤6.00	≥2.10	0.80	25
Φ24.0(25.4)	≥24.0	≤8.00	≥2.40	1.00	25
Φ30.0	≥30.0	≤10.0	≥2.40	1.00	25
Φ40.0(39.0)	≥39.0	≤13.0	≥2.40	1.00	1.22
Φ50.0	≥50.0	≤19.0	≥2.40	1.00	1.22

#### Dimensions (4:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)			Standard Package (M/Roll or M/Pcs)
		Inner diameter d	Wall thickness w1	Thickness of adhesive layer w2	
Φ4.0	≥4.0	≤1.00	≥1.00	0.50	200
Φ6.0	≥6.0	≤1.50	≥1.00	0.50	100
Φ8.0	≥8.0	≤2.00	≥1.00	0.50	50
Φ12.0	≥12.0	≤3.00	≥1.40	0.60	25
Φ16.0	≥16.0	≤4.00	≥1.60	0.80	25
Φ19.0	≥19.0	≤4.50	≥1.80	0.80	25
Φ24.0	≥24.0	≤6.00	≥2.10	0.80	25
Φ32.0	≥32.0	≤8.00	≥2.40	1.00	1.22
Φ40.0	≥40.0	≤10.0	≥2.40	1.00	1.22
Φ52.0	≥52.0	≤13.0	≥2.40	1.00	1.22





## SBRS-GFV (3X)

### V0 Flame Retardant Dual Wall Heat Shrink Tube

#### Description

It is composed of double layers of radiation cross-linked polyolefin material and hot melt adhesive. The outer layer of polyolefin is insulated and has excellent physical, chemical and electrical properties. The inner layer of hot melt adhesive has strong cushioning mechanical strain and strong sealing. The main functions are insulation, sealing, waterproofing, anti-corrosion, and air leakage. It is widely used in sealing insulation, waterproof and anti-corrosion of various wire harnesses, wires and cables and metal pipe rods.

#### Features

- Shrink ratio: 3:1
- V0 flame retardant, Environmentally friendly, UV resistance
- Rated voltage: 600V
- Shrink temperature: 125°C~200°C
- Continuous operating temperature:-45°C ~125°C
- RoHS compliant
- Standard colors: Black. More colors are available upon request.

#### Technical Performance

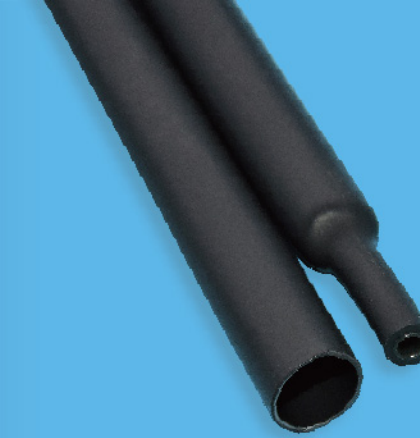
Property	Typical data	Test method/condition
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥200%	ASTM D 2671
Tensile strength	≥7.3MPa	UL224 158°C×168h
Elongation at break	≥100%	UL224 158°C×168h
Longitudinal change	±8%	/
Flammability	V0.	GB/T 2408-2008
Breakdown strength	≥15kV/mm	IEC 60243
Volume resistivity	≥1*10 <sup>14</sup> Ω.cm	IEC 60093

#### Technical Performance of Adhesive

Property	Typical Data	Test method/condition
Softening point	95°C	ASTM E 28
Water absorption	<0.2%	ASTM D 570
Peel strength(PE)	120N/25mm	ASTM D 1000
Peel strength(Al)	80N/25mm	ASTM D 1000

#### Dimensions

Size	As supplied ID(mm) D	Size after fully recovery(mm)			Standard package (m/spool, m/pc)
		ID d	Wall thickness w1	Thickness of adhesive w2	
Φ2.4	≥2.4	≤0.80	0.80±0.30	0.40±0.20	200
Φ3.2	≥3.2	≤1.00	0.90±0.30	0.40±0.20	200
Φ4.8	≥4.8	≤1.60	1.05±0.30	0.40±0.20	100
Φ6.4	≥6.4	≤2.20	1.25±0.30	0.45±0.20	100
Φ7.9	≥7.9	≤2.70	1.35±0.30	0.45±0.20	100
Φ9.5	≥9.5	≤3.20	1.45±0.30	0.50±0.20	50
Φ12.7	≥12.7	≤4.20	1.65±0.30	0.50±0.20	1.22
Φ15.0	≥15.0	≤5.20	1.80±0.30	0.55±0.30	1.22
Φ19.1	≥19.1	≤6.30	1.95±0.30	0.60±0.30	1.22
Φ25.4	≥25.4	≤8.50	2.00±0.40	0.60±0.30	1.22
Φ30.0	≥30.0	≤10.20	2.15±0.40	0.65±0.30	1.22
Φ39.0	≥39.0	≤13.50	2.45±0.40	0.75±0.30	1.22
Φ50.0	≥50.0	≤17.00	2.75±0.40	0.80±0.30	1.22
Φ64.0	≥64.0	≤21.00	3.05±0.40	1.05±0.30	1.22



## SBRS-VBK

### Semi-rigid Adhesive Lined Dual Wall Heat Shrink Tube

#### Description

SBRS-VBK is co-extruded from semi-rigid flame-retardant polyolefin and hot melt adhesive, the outer layer is semi-rigid polyolefin material with high wear resistance and strength, and the inner layer of hot melt adhesive has a low melting point, which can buffer mechanical strain and seal performance. The product has high shrinkage characteristics and wear resistance, and is widely used in automobile wiring harnesses, home wiring harnesses, metal pipelines, wire and cable repairs, etc.

#### Features

- Shrink ratio: 4:1
- Wear resistance, Waterproof, Moisture-proof, Anti-vibration, UV resistance
- Operating temperature: -35°C ~+125°C
- Shrink temperature: 110°C~135°C
- RoHS compliant
- Standard color: Black

#### Technical Performance

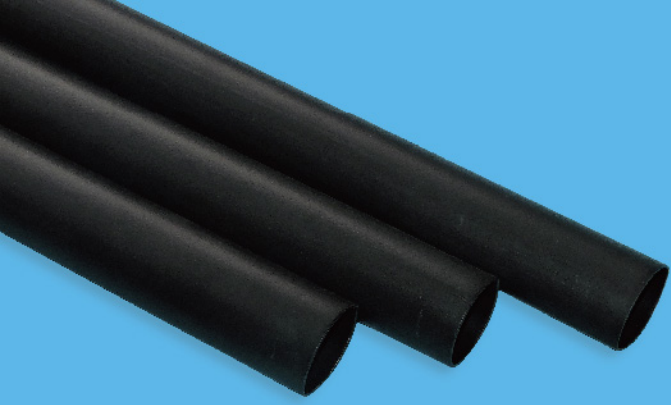
Property	Typical Data	Test Method
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation at break	≥200%	ASTM D 2671
Heat ageing Tensile strength	≥7.3MPa	158°C×168h
Heat ageing Ultimate elongation	≥100%	158°C×168h
Longitudinal shrinkage	-8%~+8%	ASTM D 2671
Flammability	Pass.	ASTM D 2671 B
Breakdown strength	≥15kV/mm	IEC 60243
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093

#### Technical Performance of Adhesive

Property	Typical Data	Test Method/Condition
Softening point	95±5	ASTM E 28
Water absorption	<0.5%	ASTM D 570
Peel strength(PE)	≥120N/25mm	ASTM D 1000
Peel strength(Al)	≥80N/25mm	ASTM D 1000

#### Dimensions

Size (mm)	As supplied (mm)	Size after fully recovery(mm)			Standard package (M/pcs)
		Inside diameter (Max.)	Total Wall thickness (Min.)w1	Adhesive Thickness (Nom.)w2	
Φ4.0	≥4.0	≤0.95	1.40±0.30	0.60±0.20	1.22
Φ6.0	≥6.0	≤1.27	1.70±0.30	0.80±0.20	1.22
Φ8.0	≥8.0	≤1.65	2.00±0.30	0.95±0.20	1.22
Φ10.0	≥10	≤2.00	2.30±0.40	1.10±0.20	1.22
Φ12.0	≥12.0	≤2.41	2.45±0.40	1.20±0.20	1.22
Φ18.0	≥18.0	≤4.45	2.60±0.40	1.34±0.30	1.22



## ZBWJ-110G (3.5X) NF

### Semi-rigid Medium Wall Heat Shrink Tube

#### Description

ZBWJ-110G (3.5X) NF Semi rigid medium wall heat shrink tube It is a specially designed heat-shrinkable tube used to protect automobile metal pipelines and fuel pipelines from environmental damage, effectively prevent damage caused by vibration, friction, and corrosion, and improve pipeline reliability.

#### Features

- Semi rigid, Non flame retardant, Environmentally friendly
- Shrink temperature: 80 °C~120°C
- Continuous operating temperature: -55°C ~110°C
- Shrink ratio: 3.5:1
- RoHS compliant .
- Standard color: Black

#### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥14MPa	ASTM D 2671
Elongation at break	≥400%	ASTM D 2671
Tensile strength after heat ageing	≥12MPa	150°C×168h
Elongation at break after heat ageing	≥300%	150°C×168h
Longitudinal change	0~-10%	ASTM D 2671
Flammability	Non flame retardant	-
Breakdown strength	≥18kV/mm	IEC 60243
Volume resistivity	≥10 <sup>13</sup> Ω.cm	IEC 60093

#### Dimensions (3.5:1)

Size(mm)	As supplied D (mm)	Size after fully recovery(mm)		Standard Package (m/pc)
		ID d	Wall thickness w	
Φ8.0/2.0	≥8.0	≤2.00	≥1.7	1.00~1.50
Φ9.0/3.0	≥9.0	≤3.00	≥1.8	1.00~1.50
Φ12.0/3.0	≥12.0	≤3.00	≥1.8	1.00~1.50
Φ16.0/5.0	≥16.0	≤5.00	≥2.0	1.00~1.50
Φ19.0/5.0	≥19.0	≤5.00	≥2.2	1.00~1.50
Φ22.0/6.0	≥22.0	≤6.00	≥2.2	1.00~1.50
Φ28.0/6.0	≥28.0	≤6.00	≥2.5	1.00~1.50
Φ33.0/8.0	≥33.0	≤8.00	≥2.5	1.00~1.50
Φ40.0/12.0	≥40.0	≤12.0	≥2.5	1.00~1.50
Φ45.0/12.0	≥45.0	≤12.0	≥2.5	1.00~1.50
Φ55.0/16.0	≥55.0	≤16.0	≥2.7	1.00~1.50
Φ65.0/19.0	≥65.0	≤19.0	≥2.8	1.00~1.50
Φ75.0/22.0	≥75.0	≤22.0	≥3.0	1.00~1.50
Φ85.0/25.0	≥85.0	≤25.0	≥3.0	1.00~1.50
Φ95.0/30.0	≥95.0	≤30.0	≥3.0	1.00~1.50
Φ115.0/34.0	≥115.0	≤34.0	≥3.3	1.00~1.50
Φ140.0/42.0	≥140.0	≤42.0	≥3.5	1.00~1.50
Φ160.0/50.0	≥160.0	≤50.0	≥3.5	1.00~1.50
Φ180.0/58.0	≥180.0	≤58.0	≥3.5	1.00~1.50
Φ205.0/65.0	≥205.0	≤65.0	≥3.5	1.00~1.50
Φ235.0/65.0	≥235.0	≤65.0	≥3.7	1.00~1.50
Φ265.0/75.0	≥265.0	≤75.0	≥4.0	1.00~1.50
Φ300.0/85.0	≥300.0	≤85.0	≥4.0	1.00~1.50
Φ350.0/100.0	≥350.0	≤100.0	≥4.3	1.00~1.50
Φ380.0/150.0	≥380.0	≤150.0	≥4.3	1.00~1.50
Φ410.0/150.0	≥410.0	≤150.0	≥4.3	1.00~1.50



## ZBDJ-110G (3.5X) NF

### Semi rigid Medium Wall Adhesive-lined Heat Shrink Tubing

#### Description

ZBDJ-110G(3.5X)NF Semi rigid medium wall adhesive-lined heat shrink tubing is made of semi rigid polyolefin extruded with a layer of hot melt adhesive inside. This product carries excellent insulation and sealing, corrosion resistance performance, and are found in wide applications like insulation and protection of medium and low voltage cable middle connections and terminations , busbars, as well as different kinds of pipelines because of its excellent corrosion resistance, moisture-proof, and abrasion resistance performances.

#### Features

- Shrink ratio:3.5:1
- Semi rigid, non flame retardant, environmentally friendly
- Shrink temperature:80°C ~120°C
- Continuous operating temperature:-55°C ~110°C
- RoHS compliant
- Standard colors: black

#### Technical Performance

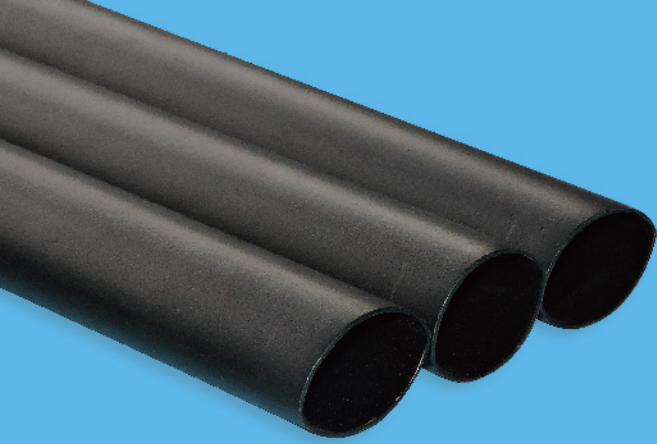
Properties	Typical Data	Test Method
Tensile strength	≥14MPa	ASTM D 2671
Elongation	≥400%	ASTM D 2671
Tensile strength after heat ageing	≥12MPa	150°C×168h
Elongation after heat ageing	≥300%	150°C×168h
Longitudinal change	0~-10%	ASTM D 2671
Flammability	Non flame retardant	-
Dielectric strength	≥18kV/mm	IEC 60243
Volume resistivity	≥10 <sup>13</sup> Ω.cm	IEC 60093

#### Hot melt adhesive

Property	Typical data	Test method/condition
Softening point	85±5°C	ASTM E 28
Water absorption	<0.5%	ASTM D 570
Peel strength(PE)	≥120N/25mm	ASTM D 1000
Peel strength(AI)	≥80N/25mm	ASTM D 1000

#### Dimensions (3.5:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard package (m/spool, m/pc)
		ID d	Wall thickness w	
Φ8.0/2.0	≥8.0	≤2.00	≥1.7	1.00~1.50
Φ9.0/3.0	≥9.0	≤3.00	≥1.8	1.00~1.50
Φ12.0/3.0	≥12.0	≤3.00	≥1.8	1.00~1.50
Φ16.0/5.0	≥16.0	≤5.00	≥2.0	1.00~1.50
Φ19.0/5.0	≥19.0	≤5.00	≥2.2	1.00~1.50
Φ22.0/6.0	≥22.0	≤6.00	≥2.2	1.00~1.50
Φ28.0/6.0	≥28.0	≤6.00	≥2.5	1.00~1.50
Φ33.0/8.0	≥33.0	≤8.00	≥2.5	1.00~1.50
Φ40.0/12.0	≥40.0	≤12.0	≥2.5	1.00~1.50
Φ45.0/12.0	≥45.0	≤12.0	≥2.5	1.00~1.50
Φ55.0/16.0	≥55.0	≤16.0	≥2.7	1.00~1.50
Φ65.0/19.0	≥65.0	≤19.0	≥2.8	1.00~1.50
Φ75.0/22.0	≥75.0	≤22.0	≥3.0	1.00~1.50
Φ85.0/25.0	≥85.0	≤25.0	≥3.0	1.00~1.50
Φ95.0/30.0	≥95.0	≤30.0	≥3.0	1.00~1.50
Φ115.0/34.0	≥115.0	≤34.0	≥3.3	1.00~1.50
Φ140.0/42.0	≥140.0	≤42.0	≥3.5	1.00~1.50
Φ160.0/50.0	≥160.0	≤50.0	≥3.5	1.00~1.50
Φ180.0/58.0	≥180.0	≤58.0	≥3.5	1.00~1.50
Φ205.0/65.0	≥205.0	≤65.0	≥3.5	1.00~1.50
Φ235.0/65.0	≥235.0	≤65.0	≥3.7	1.00~1.50
Φ265.0/75.0	≥265.0	≤75.0	≥4.0	1.00~1.50
Φ300.0/85.0	≥300.0	≤85.0	≥4.0	1.00~1.50
Φ350.0/100.0	≥350.0	≤100.0	≥4.3	1.00~1.50
Φ380.0/150.0	≥380.0	≤150.0	≥4.3	1.00~1.50
Φ410.0/150.0	≥410.0	≤150.0	≥4.3	1.00~1.50



## HBWJ-110G (3.5X) NF

Semi rigid Heavy Wall Heat Shrink Tubing (Without adhesive inside)

### Description

HBWJ-110G (3.5X) NF Semirigid heavy wall heat shrink tubing is made of polyolefin materials whose properties are modified through special radiation process with electronic accelerators as the outer layer and hot melt adhesive as the inner layer. This product is specially designed to provide insulation and protection for high voltage cable middle connections, terminations and various busbars and for other corrosion resistant, moisture-proof and sealing purposes.

### Features

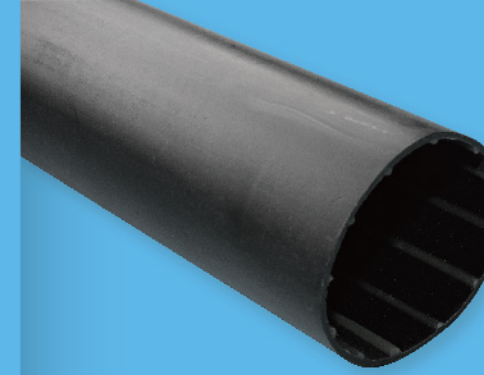
- Semirigid, non flame retardant, environment friendly
- Min. shrink temperature: 80°C
- Min full recovery temperature: 120°C
- Continuous operating temperature: -55°C~110°C
- Shrink ratio: 3.5:1
- RoHS compliant.
- Standard color: black. More colors are available upon request

### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥14MPa	ASTM D 2671
Elongation	≥400%	ASTM D 2671
Tensile strength after heat ageing	≥12MPa	150°C×168h
Elongation after heat ageing	≥300%	150°C×168h
Longitudinal change	0 ~ -10%	ASTM D 2671
Flammability	Non flame retardant	-
Dielectric strength	≥18kV/mm	IEC 60243
Volume resistivity	≥10 <sup>15</sup> Ω.cm	IEC 60093

### Dimensions (3.5:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard package (M/Pcs)
		Internal diameter d	Wall thickness w	
Φ9.0/3.0	≥9.0	≤3.0	≥1.8	1.00~1.50
Φ13.0/4.0	≥13.0	≤4.0	≥2.4	1.00~1.50
Φ22.0/6.0	≥22.0	≤6.0	≥2.7	1.00~1.50
Φ33.0/8.0	≥33.0	≤8.0	≥3.2	1.00~1.50
Φ40.0/12.0	≥40.0	≤12.0	≥4.1	1.00~1.50
Φ45.0/12.0	≥45.0	≤12.0	≥4.1	1.00~1.50
Φ55.0/16.0	≥55.0	≤16.0	≥4.1	1.00~1.50
Φ75.0/22.0	≥75.0	≤22.0	≥4.1	1.00~1.50
Φ85.0/25.0	≥85.0	≤25.0	≥4.3	1.00~1.50
Φ95.0/30.0	≥95.0	≤30.0	≥4.3	1.00~1.50
Φ105.0/30.0	≥105.0	≤30.0	≥4.3	1.00~1.50
Φ115.0/34.0	≥115.0	≤34.0	≥4.3	1.00~1.50
Φ130.0/36.0	≥130.0	≤36.0	≥4.3	1.00~1.50
Φ160.0/50.0	≥160.0	≤50.0	≥4.3	1.00~1.50
Φ180.0/50.0	≥180.0	≤50.0	≥4.3	1.00~1.50
Φ200.0/60.0	≥200.0	≤60.0	≥4.3	1.00~1.50
Φ235.0/65.0	≥235.0	≤65.0	≥4.5	1.00~1.50
Φ265.0/75.0	≥265.0	≤75.0	≥4.5	1.00~1.50
Φ300.0/85.0	≥300.0	≤85.0	≥4.5	1.00~1.50
Φ350.0/100.0	≥350.0	≤100.0	≥4.5	1.00~1.50



## HBDJ-110G (3.5X) NF

Semi rigid Heavy Wall Adhesive lined Heat Shrink Tubing

### Description

HBDJ-110G (3.5X) NF Semi rigid heavy wall adhesive lined heat shrink tubing is made of polyolefin materials extruded with a layer of hot melt adhesive inside. This product carries excellent insulation and sealing, corrosion resistance performance, with which it was found in wide applications like insulations and protections for high voltage cable middle connections and terminations, busbars, as well as different kinds of pipelines because of its excellent corrosion resistance, moisture-proof, and abrasion resistance performances.

### Features

- Semirigid, non-flame retardant, environment friendly
- Min. shrink temperature: 80°C
- Min full recovery temperature: 120°C
- Continuous operating temperature: -55°C ~110°C
- Shrink ratio: 3.5:1
- RoHS compliant
- Standard color: black, more colors are available upon request

### Technical Performance

Properties	Typical Data	Test Method
Tensile strength	≥14MPa	ASTM D 2671
Elongation	≥400%	ASTM D 2671
Tensile strength after heat ageing	≥12MPa	150°C×168h
Elongation after heat ageing	≥300%	150°C×168h
Longitudinal change	0 ~ -10%	ASTM D 2671
Flammability	Non flame retardant	-
Dielectric strength	≥18kV/mm	IEC 60243
Volume resistivity	≥10 <sup>15</sup> Ω.cm	IEC 60093

### Hot melt adhesive

Property	Typical data	Test method/conditions
Softening point	85±5°C	ASTM E 28
Water absorption	<0.5%	ASTM D 570
Peel strength(PE)	≥120N/25mm	ASTM D 1000
Peel strength(Al)	≥80N/25mm	ASTM D 1000

### Dimensions (3.5:1)

Size(mm)	As supplied D(mm)	Size after fully recovery(mm)		Standard package (m/pc)
		Internal diameter d	Wall thickness w	
Φ9.0/3.0	≥9.0	≤3.0	≥1.8	1.00~1.50
Φ13.0/4.0	≥13.0	≤4.0	≥2.4	1.00~1.50
Φ22.0/6.0	≥22.0	≤6.0	≥2.7	1.00~1.50
Φ33.0/8.0	≥33.0	≤8.0	≥3.2	1.00~1.50
Φ40.0/12.0	≥40.0	≤12.0	≥4.1	1.00~1.50
Φ45.0/12.0	≥45.0	≤12.0	≥4.1	1.00~1.50
Φ55.0/16.0	≥55.0	≤16.0	≥4.1	1.00~1.50
Φ75.0/22.0	≥75.0	≤22.0	≥4.1	1.00~1.50
Φ85.0/25.0	≥85.0	≤25.0	≥4.3	1.00~1.50
Φ95.0/30.0	≥95.0	≤30.0	≥4.3	1.00~1.50
Φ105.0/30.0	≥105.0	≤30.0	≥4.3	1.00~1.50
Φ115.0/34.0	≥115.0	≤34.0	≥4.3	1.00~1.50
Φ130.0/36.0	≥130.0	≤36.0	≥4.3	1.00~1.50
Φ160.0/50.0	≥160.0	≤50.0	≥4.3	1.00~1.50
Φ180.0/50.0	≥180.0	≤50.0	≥4.3	1.00~1.50
Φ200.0/60.0	≥200.0	≤60.0	≥4.3	1.00~1.50
Φ235.0/65.0	≥235.0	≤65.0	≥4.5	1.00~1.50
Φ265.0/75.0	≥265.0	≤75.0	≥4.5	1.00~1.50
Φ300.0/85.0	≥300.0	≤85.0	≥4.5	1.00~1.50
Φ350.0/100.0	≥350.0	≤100.0	≥4.5	1.00~1.50



## TZRS-DR150 (2X)

### Diesel Resistant Modified Elastomeric Heat Shrink Tubing

#### Description

TZRS-DR150(2X)tubing is a high performance, rugged heat shrinkable tubing designed for harsh operating conditions. The tubing is made from flexible elastomeric polyester and has a continuous operating temperature range of -55°C (-70°F) to 150°C (302°F). TZRS-DR 150(2X)-A is resistant to a wide range of solvents and chemicals including aviation fuel, diesel fuel, lubricating oils and hydraulic fluid. Volsun TZRS-DR 150(2X)-A tubing is specifically designed to pass the SC-X15111C military specification but also meets the functional requirements of MIL-DTL-2 3 0 5

3 / 1 6

#### Features

- Flexible, flame retardant
- Shrink Temperature:90°C ~150°C
- Continuous Operating Temperature:-75°C~150°C
- Shrink Ratio:2:1
- RoHS Compliant
- Standard colors :Black

#### Technical Performance

Properties	Typical Data	Test Methods
Tensile Strength	≥12MPa	ASTM D 2671
Elongation	≥250%	ASTM D 2671
Tensile Strength After Heat Aging	≥8MPa	160°C×168h
Elongation After Heat Aging	≥200%	160°C×168h
Longitudinal Change	-8%~+8%	ASTM D 2671
Dielectric Strength	≥15kV/mm	IEC 60243
Fluid Resistance Tensile Strength	≥10MPa	ISO 37 24hrs.(diesel 70°C,hydraulic 70°C, lubricant 100°C)
Fluid Resistance Elongation	≥300%	
Flammability	VW-1	UL 224
Heat Shock	No crack,no dripping	215°C×4h

#### Dimensions

Sizes	I.D. As Supplied D(mm)	Size after fully recovery(mm)		Standard Package (m/spool)
		I.D. d	Wall Thickness w	
Φ2.4	≥2.4	≤1.2	0.51±0.08	200
Φ3.2	≥3.2	≤1.6	0.76±0.15	200
Φ4.8	≥4.8	≤2.4	0.84±0.15	100
Φ6.4	≥6.4	≤3.2	0.89±0.15	100
Φ9.5	≥9.5	≤4.8	1.02±0.20	50
Φ12.7	≥12.7	≤6.4	1.22±0.20	50
Φ19.0	≥19.0	≤9.5	1.45±0.28	30
Φ25.4	≥25.4	≤12.7	1.78±0.28	30
Φ38.1	≥38.1	≤19.0	2.41±0.41	30
Φ50.8	≥50.8	≤25.4	2.79±0.41	30



## TZRS-EPDM150 (2X)

### EPDM Rubber Heat Shrink Tubing

#### Description

TZRS-EPDM150(2X) is a new type of heat shrink tubing product, which is made through complicated formulation of EPDM rubber and special resins. When TZRS-EPDM150(2X) is heated, its inside diameter quickly recovers to half of the expanded inside diameter as supplied to tightly wrap and cover the electronic components inside. Compared to normal EPDM tubing, TZRS-EPDM150(2X), cross linked through the irradiation of electronic accelerators, has much better physical and mechanical performance, higher dielectric strength, abrasion and wear resistance. It finds wide applications in electronics, automotive, and consumer goods markets for jacketing and protection to cables, pipes, and connectors etc and protecting solder joints, wires, cables, terminals, connectors and various electronic apparatus.

#### Features

- Environmental friendly
- Outstanding low and high-temperature performance
- Higher shrink ratio than heat shrinkable silicone tubes
- Excellent acids and alkalis resistance
- Chemical solvent resistance
- Ultraviolet light and weather aging resistance
- Minimum shrink temperature:100°C
- Minimum full recovery temperature :135°C
- Continuous operating Temperature Range: -55~150°C
- Shrink Ratio: 2:1
- Use in 180-200°C
- Standard color: Black

#### Technical Performance

Properties	Typical Data	Test Method
Tensile Strength	≥14 Mpa	GB/T 528
Ultimate Elongation	≥400%	GB/T 528
Tear Strength	≥60kN/m	ASTM D 624
Dielectric Strength	≥12kV/mm	ASTM D149
Density	1.1±0.05 g/cm <sup>3</sup>	ASTM D 792
Volume Resistivity	≥2*10 <sup>13</sup> Ω.cm	ASTM D257

#### Dimensions

Size (mm)	As Supplied(mm) D	Size after fully recovery(mm)		Scope of Application (mm)	Standard Package (m/spool)
		I.D.(Max.)d	Wall Thickness w		
φ6.0	≥6.0	≤3.0	0.8±0.10	3.5-6	100
φ8.0	≥8.0	≤4.0	0.9±0.10	4.5-8	100
φ10.0	≥10.0	≤5.0	1.2±0.10	5.5-9.5	50
φ12.0	≥12.0	≤6.0	1.2±0.10	6.5-11.5	50
φ16.0	≥16.0	≤8.0	1.5±0.15	8-15	50
φ20.0	≥20.0	≤10.0	1.5±0.15	11-19	25
φ30.0	≥30.0	≤15.0	1.8±0.15	17-29	25
φ40.0	≥40.0	≤20.0	2.0±0.15	22-38	25
φ50.0	≥50.0	≤25.0	2.0±0.20	27-48	25
φ60.0	≥60.0	≤30.0	2.0±0.30	32-58	25
φ70.0	≥70.0	≤35.0	2.0±0.30	38-68	25



## TZRS-VT200 (2X)

### Fluor-elastomer (Viton) Heat Shrink Tubing

#### Description

TZRS-VT200(2X) modified fluoro-elastomer heat-shrinkable tubing is highly abrasion and cut-through resistant and can withstand a wide variety of fuels, lubricants, acids and highly corrosive fluids at temperatures up to 200°C.

In addition to its high continuous operation temperature and chemical-resistance properties, this tubing is very flexible and is easily marked by hot-stamp or printwheel methods. When heated in excess of 175°C (347°F), TZRS-VT200(2X) tubing rapidly shrinks to a skintight fit. TZRS-VT200(2X) tubing is rated for continuous operation from -55°C (-67°F) to 200°C (392°F).135°C/275°F

#### Features

- Shrink ratio: 2:1
- Superior abrasion resistance
- High temperature resistance
- Excellent resistance to aggressive chemicals and solvents
- Continuous operating temperature:-65°C ~200°C
- Full recovery temp.: 90°C -175 °C
- RoHS compliant
- Flammability: UL 224 VW-1
- Meets: SAE-AMS-DTL-23053/13
- Standard color: Black

#### Technical Performance

Property	Test Method	Test Method
Tensile strength	≥8.2MPa	ASTM D 638
Ultimate elongation	≥250%	ASTM D 638
Tensile strength Ultimate elongation	≥200%	250°C×168h
Flammability	Self-quenching In 15 seconds	ASTM D 2671
Longitudinal expansion rate	-10%~ +10%	ASTM D 2671
Heat shock	No cracking	300°C×4h
Breakdown strength	≥7.9kV/mm	ASTM D 2671
volume resistivity	≥10 <sup>10</sup> Ω.cm	ASTM D 876

#### Dimensions

Size(mm)	As Supplied (mm) D	Size after fully recovery(mm)		Standard Package (m/spool)
		Inner diameter d	Wall thickness w	
Φ2.4	≥2.4	≤1.2	0.51±0.08	200
Φ3.2	≥3.2	≤1.6	0.76±0.13	100
Φ4.8	≥4.8	≤2.4	0.89±0.18	50
Φ6.4	≥6.4	≤3.2	0.89±0.18	50
Φ7.9	≥7.9	≤4.0	0.89±0.18	50
Φ9.5	≥9.5	≤4.8	0.89±0.18	50
Φ12.7	≥12.7	≤6.4	0.89±0.18	50
Φ19.1	≥19.1	≤9.5	1.07±0.21	30
Φ25.4	≥25.4	≤12.7	1.25±0.30	30
Φ38.1	≥38.1	≤19.1	1.40±0.38	30
Φ50.8	≥50.8	≤25.4	1.65±0.43	25



## TZRS-SIL200 (1.7X)

### Silicone rubber heat shrink tube

#### Description

TZRS-SIL200(1.7X) is made of silicone rubber and polymer elastomer modified by radiation can be used at high temperature for a long time, acid and alkali resistance, solvent resistance, resistance to external mechanical damage. It can be used for military vehicles, high-speed train, ship equipment or electrical appliances industries such as cable terminal, separating junction protection.

#### Features

- Acid and alkali resistant, corona resistant, prevent mildew
- Flame retardant, flexible
- Shrink Temperature: 150°C~175°C
- Continuous Operating Temperature: -55°C~200°C
- Shrink Ratio: 1.7:1
- Environmental standards: RoHS
- Standard colors: Black, grey, red, others can custom made

#### Technical Performance

Properties	Typical Data	Test Methods
Tensile Strength	≥6.9MPa	ASTM D 638
Elongation	≥300%	ASTM D 638
Tear Strength	≥14.5kN/m	ASTM D 624
Volume resistivity	≥2*10 <sup>10</sup> Ω.cm	ASTM D 876
Dielectric strength	25KV/mm	GB/T 1408
50Hz Dielectric constant 50Hz	3.2ε	GB/T 1409-2006
50Hz Dielectric loss tangent 50Hz	0.001	GB/T 1409-2006
Flammability rating	HB	GB/T 2408

#### Dimensions

Size(mm)	Inner Diameter (mm)	Size after fully recovery(mm)		Standard Packaging (m/roll)
		Inner Diameter	Thickness(A)	
φ1.0	≥1.0	0.60±0.10	0.60±0.20	200
φ1.5	≥1.5	0.80±0.20	0.70±0.20	200
φ2.0	≥2.0	1.20±0.20	0.70±0.20	200
φ2.5	≥2.5	1.50±0.20	0.70±0.20	200
φ3.0	≥3.0	1.85±0.20	0.75±0.20	200
φ3.5	≥3.5	2.20±0.20	0.75±0.20	200
φ4.0	≥4.0	2.50±0.20	0.75±0.20	200
φ4.5	≥4.5	2.80±0.20	0.75±0.20	200
φ5.0	≥5.0	3.10±0.20	0.75±0.20	100
φ5.5	≥5.5	3.40±0.20	0.75±0.20	100
φ6.0	≥6.0	3.75±0.20	0.80±0.20	100
φ6.5	≥6.5	4.00±0.20	0.80±0.20	100
φ7.0	≥7.0	4.35±0.20	0.80±0.20	100
φ8.0	≥8.0	5.00±0.20	0.90±0.20	100
φ9.0	≥9.0	5.60±0.20	1.00±0.20	100
φ10	≥10.0	6.25±0.20	1.70±0.20	100
φ12	≥12.0	7.50±0.30	1.70±0.20	50
φ15	≥15.0	9.30±0.30	1.70±0.20	50
φ16	≥16.0	10.00±0.30	1.70±0.20	50
φ18	≥18.0	11.25±0.50	1.70±0.20	50
φ20	≥20.0	12.50±0.60	1.90±0.20	50
φ25	≥25.0	15.60±0.80	1.90±0.20	50
φ35	≥35.0	22.30±1.50	2.00±0.20	1
φ40	≥38.0	24.00±2.00	2.00±0.20	1
φ50	≥47.0	30.00±3.00	2.00±0.20	1
φ65	≥64.0	37.00±3.00	2.50±0.35	1
φ70	≥67.0	42.00±3.00	2.50±0.35	1
φ80	≥77.0	48.00±5.00	2.50±0.35	1
φ90	≥87.0	54.00±5.00	2.50±0.35	1
φ110	≥107.0	65.70±5.00	2.50±0.50	1

## TZRS-PVDF175 (2X)

### PVDF-Kynar Heat Shrinkable Tubing

#### Description

TZRS-PVDF-(2X) Kynar Heat shrinkable Tubing is normally designated as kynar tubing, is a cross-linked, thin-walled, heat-shrinkable tubing offering a high degree of mechanical strength and high-temperature resistance. Fabricated from polyvinylidene fluoride, the tubing has outstanding abrasion resistance and cut-through properties in combination with high dielectric strength. It is inherently flame retardant, semi-rigid and highly resistant to most industrial fuels, chemicals and solvents. When heated in excess of 347°F (175°C), TZRS-PVDF-(2X)-B tubing rapidly shrinks to a skintight fit.

#### Features

- Shrink ratio: 2:1
- Approval: UL, VW-1, File No.E249362
- Meet: RoHS, SAE-AMS-DTL-23053/18
- Operating temperature: -55°C to + 175°C
- Recovery temperature: 155°C-175°C
- Standard color: Clear, Black

#### Technical Performance

Property	Typical Data	Test Method
Tensile strength	≥34.5MPa	ASTM D 638
Ultimate elongation	≥150%	ASTM D 638
Ultimate elongation after aging	≥100%	250°C×168h
Flammability	VW-1	UL 224
Longitudinal expansion rate	-5%~+5%	ASTM D 2671
volume resistivity	≥10 <sup>13</sup> Ω.cm	ASTM D 876
Cold bending flexible	No tracks	-55°C×4h
Heat shock	No tracks	300°C×4h
corrosive characteristics	No corrosion	ASTM D 2671

#### Dimensions

Size	As supplied D(mm)	Size after fully recovery(mm)		Standard package (M/Roll)
		Inner diameter d	Wall thickness w	
Φ0.8	≥0.8	≤0.4	0.25±0.05	200
Φ1.0	≥1.0	≤0.5	0.25±0.05	200
Φ1.2	≥1.2	≤0.6	0.25±0.05	200
Φ1.6	≥1.6	≤0.8	0.25±0.05	200
Φ2.4	≥2.4	≤1.2	0.25±0.05	200
Φ3.2	≥3.2	≤1.6	0.25±0.05	100
Φ4.8	≥4.8	≤2.4	0.25±0.05	100
Φ6.4	≥6.4	≤3.2	0.30±0.08	100
Φ9.5	≥9.5	≤4.8	0.30±0.08	100
Φ12.7	≥12.7	≤6.4	0.30±0.08	100
Φ19.1	≥19.1	≤9.5	0.43±0.08	100
Φ25.4	≥25.4	≤12.7	0.48±0.08	50
Φ38.1	≥38.1	≤19.1	0.51±0.08	50
Φ50.8	≥50.8	≤25.4	0.58±0.08	50

## TZRS-PVDF150 (2X) M

### PVDF-Medical Grade Heat Shrinkable Tubing

#### Description

TZRS-PVDF150-(2X) It is made of polyvinylidene fluoride radiation modification. It is used in applications where medical equipment needs high temperature resistance and friction resistance. It can provide insulation protection, mechanical protection, chemical protection and stress relief for medical equipment electronic components and wiring harnesses.

#### Features

- Shrink ratio: 2:1
- Meet USP CLASS VI, ISO10993
- Compatible with steam (limit cycle), gamma, ETO, dry heat sterilization
- Operating temperature: -55°C to + 150°C
- Recovery temperature: 125°C-150°C
- Soft, good toughness, abrasion resistance, oil and solvent resistance
- Standard color: Clear, Black

#### Technical Performance

Property	Typical Data	Test Method
Tensile strength	≥34.5MPa	ASTM D 638
Ultimate elongation	≥150%	ASTM D 638
Ultimate elongation after aging	≥50%	225°C×168h
Flammability	VW-1	UL 224
Longitudinal expansion rate	-5%~+5%	ASTM D 2671
volume resistivity	≥10 <sup>13</sup> Ω.cm	ASTM D 876
Cold bending flexible	No tracks	-55°C×4h
Heat shock	No tracks	275°C×4h
corrosive characteristics	No corrosion	ASTM D 2671

#### Dimensions

Size	As supplied D(mm)	Size after fully recovery(mm)		Standard package (M/Roll)
		Inner diameter d	Wall thickness w	
Φ0.8	≥0.8	≤0.4	0.25±0.05	200
Φ1.0	≥1.0	≤0.5	0.25±0.05	200
Φ1.2	≥1.2	≤0.6	0.25±0.05	200
Φ1.6	≥1.6	≤0.8	0.25±0.05	200
Φ2.4	≥2.4	≤1.2	0.25±0.05	200
Φ3.2	≥3.2	≤1.6	0.25±0.05	200
Φ4.8	≥4.8	≤2.4	0.25±0.05	100
Φ6.4	≥6.4	≤3.2	0.30±0.08	100
Φ9.5	≥9.5	≤4.8	0.30±0.08	100
Φ12.7	≥12.7	≤6.4	0.30±0.08	100
Φ19.1	≥19.1	≤9.5	0.43±0.08	100
Φ25.4	≥25.4	≤12.7	0.48±0.08	50
Φ38.1	≥38.1	≤19.1	0.51±0.08	50
Φ50.8	≥50.8	≤25.4	0.58±0.08	50



## TZRS-PTFE260 (1.7X) (4X)

### Teflon PTFE Heat Shrink Tubing

#### Description

A highly flame retardant heat shrinkable tubing manufactured from modified PTFE. Provides insulation and mechanical protection in severe chemical and thermal environments. Thin wall, high shrink ratio, flexible and transparent.

Major uses: electrical insulation, protection of electronic components, covering of hydraulic hose and couplings, prevention against contamination and corrosion. High mechanical strength and extremely low coefficient of friction make it ideal for reducing damage to bearing shafts etc.

#### Features

- Continuous operating temperature: -65°C~260°C
- Resistant to corrosion, strong acid, strong base, chemical reagents, and oil etc
- Excellent Dielectric Insulation Properties
- Excellent electrical performance that does not change with the temperature and frequency
- Excellent mechanical performance, shock proof, high elasticity
- Ultra low friction coefficient, highly flame retardant
- Flammability: VW-1
- Shrink Ratio: 1.7:1, 4:1
- Standard color: clear/transparent

#### Technical Performance

Property	standard	Test data
Tensile strength	≥19MPa	ASTM D 2671
elongation at break	≥200%	ASTM D 2671
Flammability	VW-1	UL 224
dielectric strength	≥26kV/mm	IEC 60243
volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093
copper corrosion	Pass	UL 224
water absorption	<0.1%	ASTM D 570

#### Dimensions (1.7:1)

Size	As supplied D(mm)	Size after fully recovery(mm)		Standard Package (M/roll, M/pcs)
		Diameter d	Wall thickness w	
Φ0.5	0.5±0.2	≤0.4	0.15±0.05	200
Φ0.8	0.8±0.2	≤0.48	0.15±0.05	200
Φ1.0	1.0±0.2	≤0.66	0.15±0.05	200
Φ1.5	1.5±0.2	≤0.97	0.15±0.05	200
Φ2.0	2.0±0.2	≤1.32	0.15±0.05	200
Φ2.5	2.5±0.2	≤1.65	0.15±0.05	200
Φ3.0	3.0±0.2	≤1.83	0.20±0.05	200
Φ3.5	3.5±0.2	≤2.05	0.20±0.05	100
Φ4.0	4.0±0.3	≤2.31	0.20±0.05	100
Φ4.5	4.5±0.3	≤2.57	0.20±0.05	100
Φ5.0	5.0±0.3	≤3.1	0.20±0.05	100
Φ6.0	6.0±0.3	≤3.8	0.25±0.05	100
Φ7.0	7.0±0.3	≤4.2	0.25±0.05	100
Φ8.0	8.0±0.3	≤4.8	0.25±0.05	1.0
Φ9.0	9.0±0.3	≤5.3	0.25±0.05	1.0
Φ10.0	10.0±0.3	≤6.2	0.25±0.05	1.0
Φ11.0	11.0±0.4	≤6.3	0.25±0.05	1.0
Φ12.0	12.0±0.4	≤6.95	0.25±0.05	1.0
Φ13.0	13.0±0.4	≤7.7	0.25±0.05	1.0
Φ14.0	14.0±0.5	≤8.2	0.25±0.05	1.0
Φ15.0	15.0±0.5	≤8.8	0.25±0.05	1.0
Φ16.0	16.0±0.5	≤9.4	0.25±0.05	1.0

#### Dimensions (4:1)

Size	As supplied D(mm)	Size after fully recovery(mm)		Standard package (M/Roll, M/Pcs)
		ID d	wall thickness w	
Φ3.0	3.0±0.5	≤0.66	0.30±0.05	200
Φ3.5	3.5±0.3	≤0.66	0.30±0.05	200
Φ4.0	4.0±0.5	≤0.89	0.30±0.05	200
Φ4.5	4.5±0.3	≤0.89	0.30±0.05	100
Φ5.0	5.0±0.5	≤1.07	0.30±0.05	100
Φ5.5	5.5±0.2	≤1.1	0.30±0.05	100
Φ6.0	6.0±0.7	≤1.47	0.30±0.05	100
Φ6.5	6.5±0.2	≤1.50	0.30±0.05	100
Φ7.0	7.0±0.2	≤1.65	0.30±0.05	100



## TZRS-HW (2X)

### Non-slip Textured Heat Shrink Tube

#### Description

Non-slip textured heat shrink tubing is made of irradiation cross-linked polymer alloy, followed by a surface treatment.

This products typically used for non-slip, non-skid decorative purpose for handles and grips on high grade fishing tackle, sport equipment, fitness equipment, daily supplies, various tools, kitchenware etc..

#### Features

- Flexible, fast shrinking
- Non slip, nice-looking, user-friendly
- shrink temperature:60-105°C
- Continuous operating temperature:-55°C ~110°C
- Shrink ratios: 2:1
- RoHS compliant
- Standard color: Black, Red, Yellow, Green, Blue

#### Technical Performance

Property	Typical Data	Test Method
Tensile strength	≥10.4MPa	ASTM D 2671
Elongation	≥200%	ASTM D 2671
Longitudinal change	-8%~+8%	ASTM D 2671

#### Dimensions

Size(mm)	As supplied (mm)		Size after fully recovery(mm)		Standard Packaging (m/pc)
	Inner diameter	Wall thickness	Internal diameter	Wall thickness	
φ12	12.0±1.00	0.45±0.15	≤6.5	0.80±0.15	1.0
φ15	15.0±1.00	0.45±0.15	≤8.0	0.85±0.15	1.0
φ20	20.0±1.00	0.50±0.15	≤11.0	0.90±0.15	0.8/1.0/1.6
φ22	22.0±1.50	0.50±0.15	≤12.5	0.90±0.15	0.8/1.0/1.6
φ25	25.0±1.50	0.50±0.15	≤14.5	1.00±0.15	0.8/1.0/1.6
φ28	28.0±1.50	0.50±0.15	≤15.5	1.00±0.15	0.8/1.0/1.6
φ30	30.0±2.00	0.60±0.15	≤17.5	1.20±0.15	0.8/1.0/1.6
φ35	35.0±2.00	0.60±0.15	≤20.0	1.20±0.15	0.8/1.0/1.6
φ40	40.0±2.50	0.60±0.15	≤23.0	1.20±0.15	0.8/1.0/1.6
φ45	45.0±2.50	0.65±0.15	≤25.0	1.25±0.15	0.8/1.0/1.6
φ50	50.0±3.00	0.65±0.15	≤28.0	1.25±0.15	0.8/1.0



## MS-VLU (VLA\VLO\VLD)

Halogen Free Environmentally Friendly Heat Shrinkable Wire Identification Sleeves

### Description

MSVLU series is halogen free, environmentally friendly, heat shrinkable identification sleeves. It is made of cross-linked environmentally friendly polyolefin bombarded by high power electron beam with electronic accelerators to meet high end markets where highly reliable, economical and environmentally friendly cable & wire identification is required.

It accords to the requirements of UL224, CAN/CSA C22.2. Shrink ratios, both 2:1 and 3:1 are available. See the below tables.

### Features

- Halogen free, ideally used for electronic or electrical circuits, communications, architectural industries
- Shrink ratio: 2:1, 3:1
- Recovery Temp. : 85°C -125°C
- Highly flame retardant, VW-1
- ROHS compliant and meet SONY SS-00259
- High reliability, permanent identification
- Heat sensitive, shrinking quickly
- Computerized lettering or fonts at your disposal.
- Standard Color: yellow, white(colors can be customized on requests)

Selected Guide	Features	Use Temperature
MS-VLU	No halogen	-55°C~+125°C
MS-VLA	Military grade, High flame retardant	-55°C~+135°C
MS-VLO	Military grade, laser printing, scratch resistant, oil resistant	-55°C~+135°C
MS-VLD	No halogen, Low smoke, low toxicity, flame retardant	-55°C~+125°C

### Technical Performance

Item	Performance	Data	Test Method
Tensile Strength	Before aging	≥10.3Mpa	ISO 37, 158°C,168h
	After aging	≥6.9Mpa	
Elongation	Before aging	≥200%	ISO 37, 158°C,168h
	After aging	≥100%	
Withstand voltage	Before aging/After aging	2500V, No breakdown within 60s	UL 224
Water absorption	Before aging	≤1.0	ASTM 570
Breakdown strength	Before aging	≥19.7MV/m	IEC 60243
	After aging	≥15.8MV/m	158°C,168h
Volume resistivity	Before aging	≥10 <sup>14</sup> Ω.cm	IEC 60093
Corrosion of bare copper	Before aging	No corrosion	UL224
Thermal shock	Before aging	No cracks, no viscous flow, no dripping	Around the specified shaft diameter,225°C,4h
Cold-formed flexibility	Before aging	No cracks	Around the specified shaft diameter,-55°C,1h
Color code scratch resistant	Before aging	Eraser 20 times, clearly identifiable	SAE-AS81531
Color code solvent resistant	Before aging	Soak 10 times a minute, repeat three times, clearly identifiable	MLT-STD-202

### Dimensions (2:1)

Order Description	Expanded As Supplied (mm)			Recovered After Heating (mm)	
	Inner Diameter ID1	Flatten width G	Dual Wall Thickness H	Inner Diameter ID2	Single Wall Thickness h
MS-VLU-2X-1.6-	2.00±0.20	3.7±0.3	0.48±0.10	≤0.79	0.45±0.06
MS-VLU-2X-2.4-	2.79±0.20	5.0±0.3	0.48±0.10	≤1.18	0.49±0.06
MS-VLU-2X-3.2-	3.64±0.23	6.3±0.4	0.48±0.10	≤1.59	0.51±0.06
MS-VLU-2X-4.8-	5.26±0.25	8.9±0.4	0.49±0.10	≤2.36	0.54±0.06
MS-VLU-2X-6.4-	6.92±0.28	11.5±0.4	0.50±0.10	≤3.18	0.56±0.06
MS-VLU-2X-9.5-	10.2±0.32	16.7±0.5	0.51±0.11	≤4.75	0.59±0.06
MS-VLU-2X-12.7-	13.5±0.36	21.8±0.6	0.52±0.11	≤6.35	0.60±0.07
MS-VLU-2X-19-	20.1±0.40	32.2±0.6	0.53±0.11	≤9.53	0.62±0.07
MS-VLU-2X-25-	26.7±0.45	42.5±0.7	0.55±0.12	≤12.7	0.63±0.07
MS-VLU-2X-38-	39.8±0.51	63.2±0.8	0.57±0.12	≤19.1	0.64±0.07
MS-VLU-2X-51-	53.0±0.56	83.9±0.9	0.58±0.13	≤25.4	0.64±0.08
MS-VLU-2X-76-	79.4±0.56	125.3±1.0	0.59±0.13	≤38.1	0.64±0.09

### Dimensions (3:1)

Order Description	Expanded As Supplied (mm)			Recovered After Heating (mm)	
	Internal Diameter ID1	Flatten Width G	Dual Wall Thickness H	Inner Diameter ID2	Single Wall Thickness h
MS-VLU-3X-1.6-	2.00±0.20	3.7±0.3	0.47±0.10	≤0.53	0.52±0.06
MS-VLU-3X-2.4-	2.79±0.20	5.0±0.3	0.47±0.10	≤0.79	0.57±0.06
MS-VLU-3X-3.2-	3.64±0.23	6.3±0.4	0.48±0.10	≤1.06	0.61±0.06
MS-VLU-3X-4.8-	5.26±0.25	8.9±0.4	0.49±0.10	≤1.59	0.67±0.06
MS-VLU-3X-6.4-	6.92±0.28	11.5±0.4	0.50±0.10	≤2.36	0.71±0.06
MS-VLU-3X-9.5-	10.2±0.32	16.7±0.5	0.52±0.11	≤3.18	0.77±0.06
MS-VLU-3X-12.7-	13.5±0.36	21.8±0.6	0.53±0.11	≤4.75	0.80±0.07
MS-VLU-3X-19-	20.1±0.40	32.2±0.6	0.55±0.11	≤6.35	0.84±0.07
MS-VLU-3X-25-	26.7±0.45	42.5±0.7	0.56±0.12	≤8.47	0.86±0.07
MS-VLU-3X-38-	39.8±0.51	63.2±0.8	0.57±0.12	≤12.9	0.89±0.07
MS-VLU-3X-51-	53.0±0.56	83.9±0.9	0.57±0.13	≤17.2	0.90±0.08
MS-VLU-3X-76-	79.4±0.56	125.3±1.0	0.59±0.13	≤25.8	0.92±0.09

Noted: VLU can be replaced by VLA,VLO,VLD



## MT-VLU (VLA\VLO\VLD)

Halogen Free, Environmentally Friendly Cable Identification Tags

### Description

MTVLU-Halogen free, environmentally friendly, marker tags are made by means of bombardment and cross-linking of the environmentally friendly polyolefin with high energy electron beams. Market tags are attached on large cables and wire bundles with cable ties to meet environment protection and economical identification needs in electronics, communications, electric power industries.

### Features

- RoHS environmental protection
- UV resistant, soft, flame retardant
- Printing, computer-set characters and trademark patterns
- Only use standard cable ties, no extra work, easy operation
- Standard colors: yellow, white (other colors can be customized)

Selected Guide	Features	Use Temperature
MT-VLU	No halogen	-55°C~+125°C
MT-VLA	Military grade, High flame retardant	-55°C~+135°C
MT-VLO	Military grade, laser printing, scratch resistant, oil resistant	-55°C~+135°C
MT-VLD	No halogen, Low smoke, low toxicity, flame retardant	-55°C~+125°C

### Technical Performance

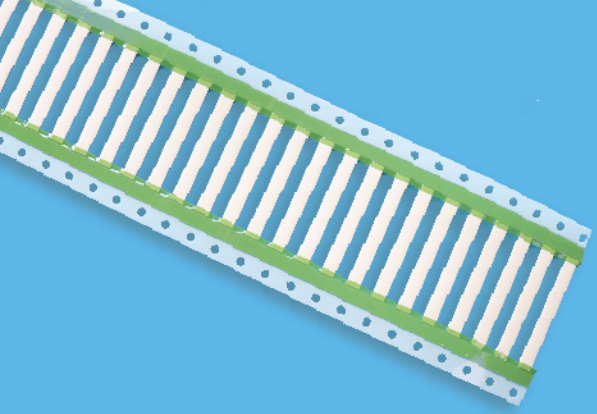
Item	Data	Test Method
Tensile strength before aging	≥10.3Mpa	ISO 37
Tensile strength after aging	≥6.9Mpa	
Elongation at break before aging	≥200%	158°C,168h
Elongation at break after aging	≥100%	
Flame retardant	VW-1	UL224
Thermal shock	No cracks, no viscous flow, no dripping	Around the specified shaft diameter,225°C,4h
Breakdown strength	≥19.7MV/m	IEC 60243, 158°C,168h
Volume resistivity	≥10 <sup>14</sup> Ω.cm	IEC 60093
Water absorption	<0.5%	ASTM D 570

### Dimensions

Size	Width G (mm)	Length L (mm)	Printing area		Application cable outer diameter (mm)
			Height G	Length l	
MT-VLU-10.4-45/4-	10.4	45	10.4	25	5.08~12.7
MT-VLU-10.4-53/4-	10.4	53	10.4	33	5.08~12.7
MT-VLU-10.4-64/4-	10.4	64	10.4	44	5.08~12.7
MT-VLU-10.4-76/6-	10.4	76	10.4	56	5.08~12.7
MT-VLU-10.4-90/6-	10.4	90	10.4	70	5.08~12.7
MT-VLU-15.0-45/4-	15.0	45	15.0	25	12.7~19.1
MT-VLU-15.0-53/4-	15.0	53	15.0	33	12.7~19.1
MT-VLU-15.0-64/4-	15.0	64	15.0	44	12.7~19.1
MT-VLU-15.0-76/6-	15.0	76	15.0	56	12.7~19.1
MT-VLU-15.0-90/6-	15.0	90	15.0	70	12.7~19.1
MT-VLU-20.3-45/4-	20.3	45	20.3	25	19.1~25.4
MT-VLU-20.3-53/4-	20.3	53	20.3	33	19.1~25.4
MT-VLU-20.3-64/4-	20.3	64	20.3	44	19.1~25.4
MT-VLU-20.3-76/6-	20.3	76	20.3	56	19.1~25.4
MT-VLU-20.3-90/6-	20.3	90	20.3	70	19.1~25.4
MT-VLU-25.4-45/4-	25.4	45	25.4	25	25.4以上
MT-VLU-25.4-53/4-	25.4	53	25.4	33	25.4以上
MT-VLU-25.4-64/4-	25.4	64	25.4	44	25.4以上
MT-VLU-25.4-76/6-	25.4	76	25.4	56	25.4以上
MT-VLU-25.4-90/6-	25.4	90	25.4	70	25.4以上

Noted: VLU can be replaced by VLA,VLO,VLD





# MS-VLH

## High temperature Heat Shrinkable Identification Sleeves

### Description

The high-temperature heat-shrinkable identification sleeve is made of radiation cross-linked high-quality temperature-resistant 225°C fluoropolymer material. It is designed for line number identification in high-temperature environments or harsh environments that need to resist corrosion by fuels, lubricants, and detergents.

The product has ultra-thin wall thickness and is used for long-lasting identification of wire harness cables that require excellent resistance to liquids and resistance to nuclear, biological and chemical cleaning agents.

### Features

- Shrink ratio: 2:1
- Recovery Temp.:  $\geq +150^{\circ}\text{C}$
- Continuous operating temperature:  $-55^{\circ}\text{C} \sim +225^{\circ}\text{C}$
- Excellent resistance to cleaning solvents and chemical properties
- high continuous use temperature, long-lasting identification
- Standard colors: white, yellow (other colors can be customized)

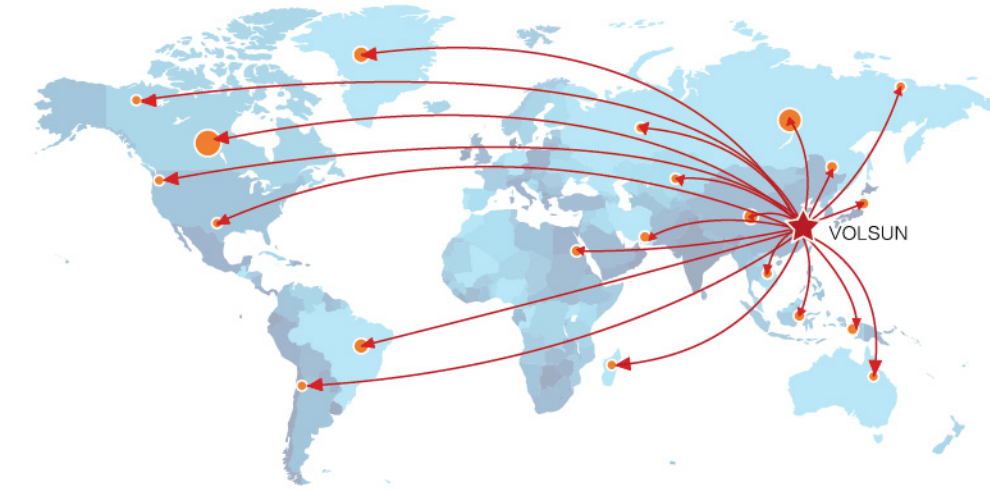
### Technical Performance

Performance	Indicators	Test Method
Longitudinal length change (%)	-10~5%	ASTM D 2671
Tensile Strength (MPa)	$\geq 24.1\text{MPa}$	ASTM D 2671
Elongation at break (%)	$\geq 300\%$	ASTM D 2671
Thermal shock	No dripping, no flow, no cracks	ASTM D 2671 (250°C×4h)
Low temperature flexibility	no cracks	AMS-DTL-23053 (-55°C×4h)
Tensile strength after heat aging (MPa)	$\geq 19.1\text{MPa}$	ASTM D 2671 (225°C×168h)
Elongation at break after heat aging (%)	$\geq 200\%$	ASTM D 2671 (225°C×168h)
Dielectric strength (kv/mm)	$\geq 19.7\text{kv/mm}$	ASTM D 2671
Volume resistivity ( $\Omega\cdot\text{cm}$ )	$\geq 10^{14}\Omega\cdot\text{cm}$	ASTM D 2671
corrosion	No corrosion	ASTM D 2671 (160°C×16h)
Flame retardant	Self-extinguishing within 60s	UL224 VW-1 ASTM D 2671

### Dimensions

Order Description	Internal Diameter ID	Size after fully recovery(mm)	
		ID after full recovery	Single Wall Thickness
MS-VLH-2X-1.2-	$\geq 1.2$	$\leq 0.6$	$0.25 \pm 0.05$
MS-VLH-2X-1.6-	$\geq 1.6$	$\leq 0.8$	$0.25 \pm 0.05$
MS-VLH-2X-2.4-	$\geq 2.4$	$\leq 1.2$	$0.25 \pm 0.05$
MS-VLH-2X-3.2-	$\geq 3.2$	$\leq 1.6$	$0.25 \pm 0.05$
MS-VLH-2X-4.8-	$\geq 4.8$	$\leq 2.4$	$0.25 \pm 0.05$
MS-VLH-2X-6.4-	$\geq 6.4$	$\leq 3.2$	$0.30 \pm 0.08$
MS-VLH-2X-9.5-	$\geq 9.5$	$\leq 4.8$	$0.30 \pm 0.08$
MS-VLH-2X-12.7-	$\geq 12.7$	$\leq 6.4$	$0.30 \pm 0.08$
MS-VLH-2X-19-	$\geq 19.1$	$\leq 9.5$	$0.43 \pm 0.08$
MS-VLH-2X-25-	$\geq 25.4$	$\leq 12.7$	$0.48 \pm 0.08$
MS-VLH-2X-38-	$\geq 38.1$	$\leq 19.1$	$0.60 \pm 0.10$

Volsun kept high speed growth in the past decade. S & T changing the world. Service doubling the value. S & T continuous innovation is the foundation of our rapid development. Up till now, we have offered cold shrink products for several Top 10 Telecom companies, and established cooperation with 88 countries' customers in the world.



- Access to quality management system certification.
- RoHS Test Report available.
- Test Report (including IP67 / IP68, UV resistance, Ozone aging resistance, etc.) by SGS.

